

EXHIBIT U:

Claim Chart for the '439 Patent

LG Electronics: LG G5 Smartphone	Patent #: 9,589,439; Independent Claim 22	Patent #: RE 43,990; Dependent Claims
<p>Manufacture for the Government; 2008: The "Cell-All" initiative. The Department of Homeland Security's (DHS) Science and Technology Directorate (S&T), Cell-All aims "to equip your cell phone with a sensor capable of detecting deadly chemicals", says Stephen Dennis, Cell-All's program manager. S&T pursued cooperative agreements with four cell phone manufacturers: Qualcomm, LG, Apple, and Samsung. Used by the Government; 2016: Both the LG G5 and V10 smartphones can be used by the Department of Defense. The LG smartphones received a security certification from the U.S. Defense Information Systems Agency, as well as a certification by the National Information Assurance Partnership. Sensors will integrate with 261 million cell phones now used in the U.S. Leverage billions of dollars spent each year in sensor, carrier network and cell phone development.</p>	<p>A communication device of at least one of a cell phone, a smart phone, a desktop, a handheld, a personal digital assistant (PDA), a laptop, or a computer terminal, comprising:</p>	<p>18. The communication device of [claim 11] wherein the communication device having a basic monitoring terminal can be adapted and incorporated to include desktop computers, notebook, PC's, laptops, cell phones, smart phones, LCD monitors, and satellite monitoring</p>

<p>The LG Watch Sport is, well, sporty-looking with a big 1.38-inch, 480-by-480 P-OLED display. The device has two buttons for convenient navigation and integrates multiple sensors, including an accelerometer, barometer, ambient light, GPS, and a PPM sensor (short for photoplethysmogram, which accurately tracks heart rate when the wearer is at rest or active).</p>	<p>at least one of a chemical sensor, a biological sensor, an explosive sensor, a human sensor, a contraband sensor, or a radiological sensor; that is wired or wireless, capable of being disposed within, on, upon or adjacent the communication device;</p>	<p>118. The multi-sensor detection system [of claim 103] wherein the cell phone, the smart phone, and the cell phone detector case have a plurality of sensors for detecting at least one of a chemical, biological, radiological, nuclear, explosive and contraband agents and compounds which are capable of being disposed within the cell phone, the smart phone, or the cell phone detector case.</p>
<p>LG G5 CPU: Quad-core (2x2.15 GHz Kryo & 2x1.6 GHz Kryo). The LG smartphones is equipped with more advanced embedded chipsets that can do many different tasks depending on their programming. The performance of the CPU that's at the core of the chipset is vital for the daily user experience and the general computing performance of the smartphone. LG G5 Chipset: Qualcomm MSM8996 Snapdragon 820</p>	<p>at least one of a central processing unit (CPU), a network processor, or a front end processor for communication between a host computer and other devices;</p>	<p>12. The communication device [of claim 11] wherein each communication device includes at least one of an internet connection, a GPS connection, a radio frequency (RF) connection, or a central processing unit (cpu).</p>
<p>Transmits signals through at least one of a cellular, a long or short range radio frequency, or a Bluetooth connection. You can use Bluetooth to transfer information between LG G5 phone and another Bluetooth-enabled device. Quick message is the specified text message to send out.</p>	<p>a transmitter for transmitting signals and messages to at least one of a multi-sensor detection device, a cell phone detection device, or a locking device;</p>	<p>28. The communication device [of claim 11] wherein the communication device can send and receive signals, send and receive warnings, send and receive commands, send and receive data, information and report the status of the sensors and operational equipment systems to and from a cell phone, smart phone, PDA or handheld device.</p>

<p>Receives signals through at least one of a cellular, a long or short range radio frequency, or a Bluetooth connection. LG G5 User Guide: Notifications: Enable this option if you wish to receive a notification when a new text or multimedia message arrives.</p>	<p>a receiver for receiving signals, data or messages from at least one of a multi-sensor detection device, a cell phone detection device, or a locking device;</p>	<p>28. The communication device [of claim 11] wherein the communication device can send and receive signals, send and receive warnings, send and receive commands, send and receive data, information and report the status of the sensors and operational equipment systems to and from a cell phone, smart phone, PDA or handheld device.</p>
<p>LG G5 cellular connection; Wi-Fi 802.11 a/b/g/n/ac, dual-band, Wi-Fi Direct, DLNA, hotspot; Bluetooth 4.2, A2DP, LE, aptX HD; GPS with A-GPS, GLONASS, and BDS</p>	<p>at least one of a satellite connection, Bluetooth connection, WiFi connection, internet connection, cellular connection, long and/or short range radio frequency (RF) connection, or GPS connection;</p>	<p>25. The communication device [of claim 11] wherein the communication device has at least one of a Bluetooth connection, a Wi-Fi connection, a short and long range radio frequency connection, a Cellular connection, a satellite connection, and a GPS connection.</p>
<p>LG G5 features include sensors for face/smile detection, iris scanner, and fingerprint recognition.</p>	<p>the communication device being at least a fixed, portable or mobile communication device, equipped with at least one wired or wireless sensor for the detection of humans;</p>	<p>30. The communication device [of claim 11] wherein the communication device is designed to be used with or without biometrics for authentication and identification, with at least one of a fingerprint recognition, voice recognition, face recognition, hand geometry, retina scan, iris scan, heart rate, pulse or signature, thereby allowing access to the product by authorized, trained, and equipped individuals and preventing access to the product by unauthorized, untrained, and unequipped individuals.</p>

<p>After 5 unsuccessful attempts to unlock the LG smartphone, the user is prompted to enter a text phrase to confirm that they are trying to unlock the phone. The user has 10 opportunities to enter the unlock sequence. After 10 unsuccessful attempts, the phone will automatically perform a factory data reset and all of the personal files will be erased. The user is warned after the 9th unsuccessful attempt. If a Knock Code is set, after 6 unsuccessful attempts, the user is prompted to enter the Backup PIN to unlock the phone.</p>	<p>the communication device being equipped to receive signals from or send signals to engage (lock), disengage (unlock), or disable (make unavailable) locks;</p>	<p>22. The communication device [of claim 11] wherein the communication device is designed to be equipped with applications for the locking, disabling a lock, enabling a lock, and unlocking the locks of, but not limited to, containers, vehicles, houses and businesses, using a smart phone, cell phone, PDA, laptop or desktop</p>
<p>LG G5 features include sensors for face/smile detection, iris scanner, and fingerprint identification.</p>	<p>the communication device being equipped with biometrics that incorporates at least one of a fingerprint recognition or a face recognition to at least one of gain access to the device or to prevent unauthorized use;</p>	<p>30. The communication device [of claim 11] wherein the communication device is designed to be used with or without biometrics for authentication and identification, with at least one of a fingerprint recognition, voice recognition, face recognition, hand geometry, retina scan, iris scan, heart rate, pulse or signature, thereby allowing access to the product by authorized, trained, and equipped individuals and preventing access to the product by unauthorized, untrained, and unequipped individuals.</p>

<p>The LG G5 NFC is a short-range high frequency wireless communication technology that enables the exchange of data between devices over about a 10 cm distance. It allows users to share content between digital devices, and even use their LG smartphone on existing contactless infrastructure. The significant advantage of NFC over Bluetooth is the shorter set-up time (under a 1/10 second).</p>	<p>the communication device being capable of wireless near-field communication (NFC) which allows radio frequency (RF) data to be at least one of received or transferred between the communication device and at least one tag that is read by the communication device;</p>	<p>20. The communication device [of claim 11] wherein the communication device can be interconnected through wire or wireless for communication, signals, commands and transmission of data.</p>
<p>LG G5 cellular connection; Wi-Fi 802.11 a/b/g/n/ac, dual-band, Wi-Fi Direct, DLNA, hotspot; Bluetooth 4.2, A2DP, LE, aptX HD; GPS with A-GPS, GLONASS, and BDS. Smartphone manufacturers and operators have introduced the Assisted GPS technology, which downloads the current ephemeris for a few days ahead via the wireless networks and helps triangulate the general user's position with the cell towers thus allowing the GPS receiver to get a faster lock at the expense of several (kilo)bytes.</p>	<p>whereupon a signal sent to the receiver of at least one of a multi-sensor detection device, a cell phone detection device, or a locking device from a satellite or a cell phone tower or through at least one of a Bluetooth connection, a WiFi connection, an internet connection, a cellular connection, a GPS connection, a short range radio frequency (RF) connection, or a long range radio frequency (RF) connection, causes a signal that includes at least one of location data or sensor data to be sent to the communication device; and</p>	<p>25. The communication device [of claim 11] wherein the communication device has at least one of a Bluetooth connection, a Wi-Fi connection, a short and long range radio frequency connection, a Cellular connection, a satellite connection, and a GPS connection.</p>

<p>Transmits and receives signals through at least one of a cellular, a long or short range radio frequency, or a Bluetooth connection. You can use Bluetooth to transfer information between LG G5 phone and another Bluetooth-enabled device. Quick message is the specified text message to send out. LG G5 User Guide: Notifications: Enable this option if you wish to receive a notification when a new text or multimedia message arrives.</p>	<p>wherein at least one of a satellite connection, Bluetooth connection, WiFi connection, internet connection, cellular connection, long range radio frequency (RF) connection, or short range radio frequency (RF) connection, capable of signal communication with the transmitter of the communication device, the receiver of the communication device, or the central processing unit (CPU).</p>	<p>28. The communication device [of claim 11] wherein the communication device can send and receive signals, send and receive warnings, send and receive commands, send and receive data, information and report the status of the sensors and operational equipment systems to and from a cell phone, smart phone, PDA or handheld device.</p>
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LG Electronics: LG V10 Smartphone	Patent #: 9,589,439; Independent Claim 22	Patent #: RE 43,990; Dependent Claims
<p>Manufacture for the Government; 2008: The "Cell-All" initiative. The Department of Homeland Security's (DHS) Science and Technology Directorate (S&T), Cell-All aims "to equip your cell phone with a sensor capable of detecting deadly chemicals", says Stephen Dennis, Cell-All's program manager. S&T pursued cooperative agreements with four cell phone manufacturers: Qualcomm, LG, Apple, and Samsung. Used by the Government; 2016: Both the LG G5 and V10 smartphones can be used by the Department of Defense. The LG smartphones received a security certification from the U.S. Defense Information Systems Agency, as well as a certification by the National Information Assurance Partnership. Sensors will integrate with 261 million cell phones now used in the U.S. Leverage billions of dollars spent each year in sensor, carrier network and cell phone development.</p>	<p>A communication device of at least one of a cell phone, a smart phone, a desktop, a handheld, a personal digital assistant (PDA), a laptop, or a computer terminal, comprising:</p>	<p>18. The communication device of claim 11 wherein the communication device having a basic monitoring terminal can be adapted and incorporated to include desktop computers, notebook, PC's, laptops, cell phones, smart phones, LCD monitors, and satellite monitoring</p>

<p>The LG Watch Sport is, well, sporty-looking with a big 1.38-inch, 480-by-480 P-OLED display. The device has two buttons for convenient navigation and integrates multiple sensors, including an accelerometer, barometer, ambient light, GPS, and a PPM sensor (short for photoplethysmogram, which accurately tracks heart rate when the wearer is at rest or active).</p>	<p>at least one of a chemical sensor, a biological sensor, an explosive sensor, a human sensor, a contraband sensor, or a radiological sensor; that is wired or wireless, capable of being disposed within, on, upon or adjacent the communication device;</p>	<p>118. The multi-sensor detection system [of claim 103] wherein the cell phone, the smart phone, and the cell phone detector case have a plurality of sensors for detecting at least one of a chemical, biological, radiological, nuclear, explosive and contraband agents and compounds which are capable of being disposed within the cell phone, the smart phone, or the cell phone detector case.</p>
<p>LG V10 CPU: Hexa-core (4x1.4 GHz Cortex-A53 & 2x1.8 GHz Cortex-A57). The LG smartphones is equipped with more advanced embedded chipsets that can do many different tasks depending on their programming. The performance of the CPU that's at the core of the chipset is vital for the daily user experience and the general computing performance of the smartphone. LG V10 Chipset: Qualcomm MSM8992 Snapdragon 808</p>	<p>at least one of a central processing unit (CPU), a network processor, or a front end processor for communication between a host computer and other devices;</p>	<p>12. The communication device [of claim 11] wherein each communication device includes at least one of an internet connection, a GPS connection, a radio frequency (RF) connection, or a central processing unit (cpu).</p>
<p>Transmits signals through at least one of a cellular, a long or short range radio frequency, or a Bluetooth connection. You can use Bluetooth to transfer information between LG V10 phone and another Bluetooth-enabled device. Quick message is the specified text message to send out.</p>	<p>a transmitter for transmitting signals and messages to at least one of a multi-sensor detection device, a cell phone detection device, or a locking device;</p>	<p>28. The communication device [of claim 11] wherein the communication device can send and receive signals, send and receive warnings, send and receive commands, send and receive data, information and report the status of the sensors and operational equipment systems to and from a cell phone, smart phone, PDA or handheld device.</p>

<p>Receives signals through at least one of a cellular, a long or short range radio frequency, or a Bluetooth connection. LG V10 User Guide: Notifications: Enable this option if you wish to receive a notification when a new text or multimedia message arrives.</p>	<p>a receiver for receiving signals, data or messages from at least one of a multi-sensor detection device, a cell phone detection device, or a locking device;</p>	<p>28. The communication device [of claim 11] wherein the communication device can send and receive signals, send and receive warnings, send and receive commands, send and receive data, information and report the status of the sensors and operational equipment systems to and from a cell phone, smart phone, PDA or handheld device.</p>
<p>LG V10 cellular connection; Wi-Fi 802.11 a/b/g/n/ac, dual-band, Wi-Fi Direct, DLNA, hotspot; Bluetooth 4.1, A2DP, LE, aptX ; GPS with A-GPS, and GLONASS</p>	<p>at least one of a satellite connection, Bluetooth connection, WiFi connection, internet connection, cellular connection, long and/or short range radio frequency (RF) connection, or GPS connection;</p>	<p>25. The communication device [of claim 11] wherein the communication device has at least one of a Bluetooth connection, a Wi-Fi connection, a short and long range radio frequency connection, a Cellular connection, a satellite connection, and a GPS connection.</p>
<p>LG V10 features include sensors for face/smile detection, iris scanner, and fingerprint recognition.</p>	<p>the communication device being at least a fixed, portable or mobile communication device, equipped with at least one wired or wireless sensor for the detection of humans;</p>	<p>30. The communication device [of claim 11] wherein the communication device is designed to be used with or without biometrics for authentication and identification, with at least one of a fingerprint recognition, voice recognition, face recognition, hand geometry, retina scan, iris scan, heart rate, pulse or signature, thereby allowing access to the product by authorized, trained, and equipped individuals and preventing access to the product by unauthorized, untrained, and unequipped individuals.</p>

<p>After 5 unsuccessful attempts to unlock the LG smartphone, the user is prompted to enter a text phrase to confirm that they are trying to unlock the phone. The user has 10 opportunities to enter the unlock sequence. After 10 unsuccessful attempts, the phone will automatically perform a factory data reset and all of the personal files will be erased. The user is warned after the 9th unsuccessful attempt. If a Knock Code is set, after 6 unsuccessful attempts, the user is prompted to enter the Backup PIN to unlock the phone.</p>	<p>the communication device being equipped to receive signals from or send signals to engage (lock), disengage (unlock), or disable (make unavailable) locks;</p>	<p>22. The communication device [of claim 11] wherein the communication device is designed to be equipped with applications for the locking, disabling a lock, enabling a lock, and unlocking the locks of, but not limited to, containers, vehicles, houses and businesses, using a smart phone, cell phone, PDA, laptop or desktop</p>
<p>LG V10 features include sensors for face/smile detection, iris scanner, and fingerprint identification.</p>	<p>the communication device being equipped with biometrics that incorporates at least one of a fingerprint recognition or a face recognition to at least one of gain access to the device or to prevent unauthorized use;</p>	<p>30. The communication device [of claim 11] wherein the communication device is designed to be used with or without biometrics for authentication and identification, with at least one of a fingerprint recognition, voice recognition, face recognition, hand geometry, retina scan, iris scan, heart rate, pulse or signature, thereby allowing access to the product by authorized, trained, and equipped individuals and preventing access to the product by unauthorized, untrained, and unequipped individuals.</p>

<p>The LG V10 NFC is a short-range high frequency wireless communication technology that enables the exchange of data between devices over about a 10 cm distance. It allows users to share content between digital devices, and even use their LG smartphone on existing contactless infrastructure. The significant advantage of NFC over Bluetooth is the shorter set-up time (under a 1/10 second).</p>	<p>the communication device being capable of wireless near-field communication (NFC) which allows radio frequency (RF) data to be at least one of received or transferred between the communication device and at least one tag that is read by the communication device;</p>	<p>20. The communication device [of claim 11] wherein the communication device can be interconnected through wire or wireless for communication, signals, commands and transmission of data.</p>
<p>LG V10 cellular connection; Wi-Fi 802.11 a/b/g/n/ac, dual-band, Wi-Fi Direct, DLNA, hotspot; Bluetooth 4.1, A2DP, LE, aptX; GPS with A-GPS, and GLONASS. Smartphone manufacturers and operators have introduced the Assisted GPS technology, which downloads the current ephemeris for a few days ahead via the wireless networks and helps triangulate the general user's position with the cell towers thus allowing the GPS receiver to get a faster lock at the expense of several (kilo)bytes.</p>	<p>whereupon a signal sent to the receiver of at least one of a multi-sensor detection device, a cell phone detection device, or a locking device from a satellite or a cell phone tower or through at least one of a Bluetooth connection, a WiFi connection, an internet connection, a cellular connection, a GPS connection, a short range radio frequency (RF) connection, or a long range radio frequency (RF) connection, causes a signal that includes at least one of location data or sensor data to be sent to the communication device; and</p>	<p>25. The communication device [of claim 11] wherein the communication device has at least one of a Bluetooth connection, a Wi-Fi connection, a short and long range radio frequency connection, a Cellular connection, a satellite connection, and a GPS connection.</p>

<p>Transmits and receives signals through at least one of a cellular, a long or short range radio frequency, or a Bluetooth connection. You can use Bluetooth to transfer information between LG V10 phone and another Bluetooth-enabled device. Quick message is the specified text message to send out. LG V10 User Guide: Notifications: Enable this option if you wish to receive a notification when a new text or multimedia message arrives.</p>	<p>wherein at least one of a satellite connection, Bluetooth connection, WiFi connection, internet connection, cellular connection, long range radio frequency (RF) connection, or short range radio frequency (RF) connection, capable of signal communication with the transmitter of the communication device, the receiver of the communication device, or the central processing unit (CPU).</p>	<p>28. The communication device [of claim 11] wherein the communication device can send and receive signals, send and receive warnings, send and receive commands, send and receive data, information and report the status of the sensors and operational equipment systems to and from a cell phone, smart phone, PDA or handheld device.</p>
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Apple's iPhone / iPad Camera Biosensor for Facial Heart Rate Monitor	Patent #: 9,589,439; Independent Claim 22	Patent #: RE 43,990; Dependent Claims
<p>A new iPhone app turns your device's camera into a biosensor to measure your heart rate. The app from the Rock Health accelerator program is called Cardiio. The technology was developed by spouses Yukkee and Ming-Zher Poh at MIT's Media Lab. Cardiio is powered by cutting-edge research and science conducted at the MIT Media Lab. After a user downloads the app, they hold the iPhone or iPad up to their face in a well-lit area, hold steady for a few seconds, and receive their resting heart rate.</p>	<p>A communication device of at least one of a cell phone, a smart phone, a desktop, a handheld, a personal digital assistant (PDA), a laptop, or a computer terminal, comprising:</p>	<p>18. The communication device of claim 11 wherein the communication device having a basic monitoring terminal can be adapted and incorporated to include desktop computers, notebook, PC's, laptops, cell phones, smart phones, LCD monitors, and satellite monitoring</p>
<p>Every time your heart beats, more blood is pumped into your face. This slight increase in blood volume causes more light to be absorbed, and hence less light is reflected from your face. Cardiio uses your camera to track these tiny changes in reflected light that are not visible to the human eye and calculate your heart beat. Measurement accuracy is within 3 beats/min of a clinical pulse oximeter when performed at rest in a well-lit environment. Cardiio works: look straight into the front camera of your iPhone/iPad to measure your heart rate from a distance.</p>	<p>at least one of a chemical sensor, a biological sensor, an explosive sensor, a human sensor, a contraband sensor, or a radiological sensor; that is wired or wireless, capable of being disposed within, on, upon or adjacent the communication device;</p>	<p>118. The multi-sensor detection system [of claim 103] wherein the cell phone, the smart phone, and the cell phone detector case have a plurality of sensors for detecting at least one of a chemical, biological, radiological, nuclear, explosive and contraband agents and compounds which are capable of being disposed within the cell phone, the smart phone, or the cell phone detector case.</p>

<p>Apple chip A8X delivers better CPU and graphics performance than its predecessor. With its 64-bit desktop-class architecture, iPad Air 2 is as powerful as many personal computers. It's power efficient, too, with a 10-hour battery life. The iPhone 6's A8 processor has a dual-core model like the A7, but clocked at a higher frequency. The iPhone 6 has a 2GHz dual-core 20nm 64-bit A8 CPU.</p>	<p>at least one of a central processing unit (CPU), a network processor, or a front end processor for communication between a host computer and other devices;</p>	<p>12. The communication device [of claim 11] wherein each communication device includes at least one of an internet connection, a GPS connection, a radio frequency (RF) connection, or a central processing unit (cpu).</p>
<p>If your iPhone, iPad, or iPod touch is lost or stolen. Turn on Lost Mode. Using Lost Mode, a person can remotely lock the device with a four-digit passcode, and display a custom message with your phone number on your missing device's Lock screen</p>	<p>a transmitter for transmitting signals and messages to at least one of a multi-sensor detection device, a cell phone detection device, or a locking device;</p>	<p>28. The communication device [of claim 11] wherein the communication device can send and receive signals, send and receive warnings, send and receive commands, send and receive data, information and report the status of the sensors and operational equipment systems to and from a cell phone, smart phone, PDA or handheld device.</p>
<p>If your iPhone, iPad, or iPod touch is lost or stolen. Turn on Lost Mode. Using Lost Mode, a person can remotely lock the device with a four-digit passcode, and display a custom message with your phone number on your missing device's Lock screen</p>	<p>a receiver for receiving signals, data or messages from at least one of a multi-sensor detection device, a cell phone detection device, or a locking device;</p>	<p>28. The communication device [of claim 11] wherein the communication device can send and receive signals, send and receive warnings, send and receive commands, send and receive data, information and report the status of the sensors and operational equipment systems to and from a cell phone, smart phone, PDA or handheld device.</p>

<p>Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi). The cellular service, originally called 3G and now called LTE; this option allows the iPhone to connect to the internet anywhere cell phone works, to check emails. The iPhone's GPS chip is like that found in stand-alone GPS devices. The iPhone uses the GPS chip in conjunction with cell phone towers and Wi-Fi networks—in a process termed "assisted GPS"—to quickly calculate the phone's position.</p>	<p>at least one of a satellite connection, Bluetooth connection, WiFi connection, internet connection, cellular connection, long and/or short range radio frequency (RF) connection, or GPS connection;</p>	<p>25. The communication device [of claim 11] wherein the communication device has at least one of a Bluetooth connection, a Wi-Fi connection, a short and long range radio frequency connection, a Cellular connection, a satellite connection, and a GPS connection.</p>
<p>Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi). iPhone and iPad Touch ID use fingerprint as a passcode. Fingerprint one of best passcodes in the world. With just a touch of the device's Home button, the Touch ID sensor quickly reads a fingerprint and automatically unlocks the phone.</p>	<p>the communication device being at least a fixed, portable or mobile communication device, equipped with at least one wired or wireless sensor for the detection of humans;</p>	<p>30. The communication device [of claim 11] wherein the communication device is designed to be used with or without biometrics for authentication and identification, with at least one of a fingerprint recognition, voice recognition, face recognition, hand geometry, retina scan, iris scan, heart rate, pulse or signature, thereby allowing access to the product by authorized, trained, and equipped individuals and preventing access to the product by unauthorized, untrained, and unequipped individuals.</p>

<p>If the Apple Touch ID doesn't recognize your finger, you'll be asked to try again. After multiple failed attempts, you'll be given the option of entering your Apple ID password. In addition, you will need to enter your Apple ID password after: (1) Restarting your device, and (2) Enrolling or deleting fingers. If your device is lost or stolen, you can immediately disable Touch ID from being used to unlock your device with Find My iPhone Lost Mode.</p> <p>Additional protection against theft with Activation Lock, which requires an Apple ID and password to, erase data, or reactivate your device.</p>	<p>the communication device being equipped to receive signals from or send signals to engage (lock), disengage (unlock), or disable (make unavailable) locks;</p>	<p>22. The communication device [of claim 11] wherein the communication device is designed to be equipped with applications for the locking, disabling a lock, enabling a lock, and unlocking the locks of, but not limited to, containers, vehicles, houses and businesses, using a smart phone, cell phone, PDA, laptop or desktop</p>
<p>iPhone and iPad Touch ID is a seamless way to use your fingerprint as a passcode. Your fingerprint is one of the best passcodes in the world. With just a touch of your device's Home button, the Touch ID sensor quickly reads your fingerprint and automatically unlocks your phone.</p>	<p>the communication device being equipped with biometrics that incorporates at least one of a fingerprint recognition or a face recognition to at least one of gain access to the device or to prevent unauthorized use;</p>	<p>30. The communication device [of claim 11] wherein the communication device is designed to be used with or without biometrics for authentication and identification, with at least one of a fingerprint recognition, voice recognition, face recognition, hand geometry, retina scan, iris scan, heart rate, pulse or signature, thereby allowing access to the product by authorized, trained, and equipped individuals and preventing access to the product by unauthorized, untrained, and unequipped individuals.</p>

<p>NFC arrived on the iPhone 6 in 2014, it has been restricted to the contactless Apple Pay system. But at the Worldwide Developers Conference last week, Apple quietly announced that with the arrival of iOS 11 this fall, apps will be able to use an iPhone's NFC chip to read tags, pair with accessories, and exchange data with other NFC devices.</p>	<p>the communication device being capable of wireless near-field communication (NFC) which allows radio frequency (RF) data to be at least one of received or transferred between the communication device and at least one tag that is read by the communication device;</p>	<p>20. The communication device [of claim 11] wherein the communication device can be interconnected through wire or wireless for communication, signals, commands and transmission of data.</p>
<p>Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi). The cellular service, originally called 3G and now called LTE; this option allows the iPhone to connect to the internet anywhere cell phone works, to check emails. The iPhone's GPS chip is like that found in stand-alone GPS devices. The iPhone uses the GPS chip in conjunction with cell phone towers and Wi-Fi networks—in a process termed "assisted GPS"—to quickly calculate the phone's position.</p>	<p>whereupon a signal sent to the receiver of at least one of a multi-sensor detection device, a cell phone detection device, or a locking device from a satellite or a cell phone tower or through at least one of a Bluetooth connection, a WiFi connection, an internet connection, a cellular connection, a GPS connection, a short range radio frequency (RF) connection, or a long range radio frequency (RF) connection, causes a signal that includes at least one of location data or sensor data to be sent to the communication device; and</p>	<p>25. The communication device [of claim 11] wherein the communication device has at least one of a Bluetooth connection, a Wi-Fi connection, a short and long range radio frequency connection, a Cellular connection, a satellite connection, and a GPS connection.</p>

<p>Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi). The cellular service, originally called 3G and now called LTE; this option allows the iPhone to connect to the internet anywhere cell phone works, to check emails. Apple chip A8X delivers better CPU and graphics performance than its predecessor. The iPhone 6's A8 processor has a dual-core model like the A7. The iPhone 6 has a 2GHz dual-core 20nm 64-bit A8 CPU.</p>	<p>wherein at least one of a satellite connection, Bluetooth connection, WiFi connection, internet connection, cellular connection, long range radio frequency (RF) connection, or short range radio frequency (RF) connection, capable of signal communication with the transmitter of the communication device, the receiver of the communication device, or the central processing unit (CPU).</p>	<p>28. The communication device [of claim 11] wherein the communication device can send and receive signals, send and receive warnings, send and receive commands, send and receive data, information and report the status of the sensors and operational equipment systems to and from a cell phone, smart phone, PDA or handheld device.</p>
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Apple's iPhone 5, 5c, 5s, 6, 6 Plus and the iPad interconnected to the Apple Watch	Patent #: 9,589,439; Independent Claim 22	Patent #: RE 43,990; Dependent Claims
<p>The Apple Watch (e.g. multi-sensor detection device: interconnected to monitoring equipment – iPhone / iPad; biosensor for detecting heart rate; leveraged internet and GPS connections; power source battery; CPU; light indicators). Apple Watch requires an iPhone 5, 5c, 5s, 6, and 6 Plus. Apple Watch Bluetooth and Wi-Fi; therefore Apple Watch can 'speak' to the iPad. Apple Watch uses GPS and Wi-Fi to track distance; running indoors it uses accelerometer; cycling outdoors, it uses GPS.</p>	<p>A communication device of at least one of a cell phone, a smart phone, a desktop, a handheld, a personal digital assistant (PDA), a laptop, or a computer terminal, comprising:</p>	<p>18. The communication device of claim 11 wherein the communication device having a basic monitoring terminal can be adapted and incorporated to include desktop computers, notebook, PC's, laptops, cell phones, smart phones, LCD monitors, and satellite monitoring</p>
<p>The heart rate bio-chemical sensor in Apple Watch uses photoplethysmography (heart rate (HR) and pulse oximeter oxygen saturation (SpO2) from wearable photoplethysmographic (PPG) biosensors). Technology based: Blood is red because it reflects red light and absorbs green light. Apple Watch uses green LED lights paired with light sensitive photodiodes to detect the amount of blood flowing through your wrist. When heart beats, the green light absorption is greater. By flashing its LED lights, Apple Watch can calculate the number of times the heart beats each minute; your heart rate.</p>	<p>at least one of a chemical sensor, a biological sensor, an explosive sensor, a human sensor, a contraband sensor, or a radiological sensor; that is wired or wireless, capable of being disposed within, on, upon or adjacent the communication device;</p>	<p>118. The multi-sensor detection system [of claim 103] wherein the cell phone, the smart phone, and the cell phone detector case have a plurality of sensors for detecting at least one of a chemical, biological, radiological, nuclear, explosive and contraband agents and compounds which are capable of being disposed within the cell phone, the smart phone, or the cell phone detector case.</p>

<p>Apple chip A8X delivers better CPU and graphics performance than its predecessor. With its 64-bit desktop-class architecture, iPad Air 2 is as powerful as many personal computers. It's power efficient, too, with a 10-hour battery life. The iPhone 6's A8 processor has a dual-core model like the A7, but clocked at a higher frequency. The iPhone 6 has a 2GHz dual-core 20nm 64-bit A8 CPU.</p>	<p>at least one of a central processing unit (CPU), a network processor, or a front end processor for communication between a host computer and other devices;</p>	<p>12. The communication device [of claim 11] wherein each communication device includes at least one of an internet connection, a GPS connection, a radio frequency (RF) connection, or a central processing unit (cpu).</p>
<p>If your iPhone, iPad, or iPod touch is lost or stolen. Turn on Lost Mode. Using Lost Mode, a person can remotely lock the device with a four-digit passcode, and display a custom message with your phone number on your missing device's Lock screen</p>	<p>a transmitter for transmitting signals and messages to at least one of a multi-sensor detection device, a cell phone detection device, or a locking device;</p>	<p>28. The communication device [of claim 11] wherein the communication device can send and receive signals, send and receive warnings, send and receive commands, send and receive data, information and report the status of the sensors and operational equipment systems to and from a cell phone, smart phone, PDA or handheld device.</p>
<p>If your iPhone, iPad, or iPod touch is lost or stolen. Turn on Lost Mode. Using Lost Mode, a person can remotely lock the device with a four-digit passcode, and display a custom message with your phone number on your missing device's Lock screen</p>	<p>a receiver for receiving signals, data or messages from at least one of a multi-sensor detection device, a cell phone detection device, or a locking device;</p>	<p>28. The communication device [of claim 11] wherein the communication device can send and receive signals, send and receive warnings, send and receive commands, send and receive data, information and report the status of the sensors and operational equipment systems to and from a cell phone, smart phone, PDA or handheld device.</p>

<p>Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi). The cellular service, originally called 3G and now called LTE; this option allows the iPhone to connect to the internet anywhere cell phone works, to check emails. The iPhone's GPS chip is like that found in stand-alone GPS devices. The iPhone uses the GPS chip in conjunction with cell phone towers and Wi-Fi networks—in a process termed "assisted GPS"—to quickly calculate the phone's position.</p>	<p>at least one of a satellite connection, Bluetooth connection, WiFi connection, internet connection, cellular connection, long and/or short range radio frequency (RF) connection, or GPS connection;</p>	<p>25. The communication device [of claim 11] wherein the communication device has at least one of a Bluetooth connection, a Wi-Fi connection, a short and long range radio frequency connection, a Cellular connection, a satellite connection, and a GPS connection.</p>
<p>Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi). iPhone and iPad Touch ID use fingerprint as a passcode. Fingerprint one of best passcodes in the world. With just a touch of the device's Home button, the Touch ID sensor quickly reads a fingerprint and automatically unlocks the phone.</p>	<p>the communication device being at least a fixed, portable or mobile communication device, equipped with at least one wired or wireless sensor for the detection of humans;</p>	<p>30. The communication device [of claim 11] wherein the communication device is designed to be used with or without biometrics for authentication and identification, with at least one of a fingerprint recognition, voice recognition, face recognition, hand geometry, retina scan, iris scan, heart rate, pulse or signature, thereby allowing access to the product by authorized, trained, and equipped individuals and preventing access to the product by unauthorized, untrained, and unequipped individuals.</p>

<p>If the Apple Touch ID doesn't recognize your finger, you'll be asked to try again. After multiple failed attempts, you'll be given the option of entering your Apple ID password. In addition, you will need to enter your Apple ID password after: (1) Restarting your device, and (2) Enrolling or deleting fingers. If your device is lost or stolen, you can immediately disable Touch ID from being used to unlock your device with Find My iPhone Lost Mode.</p> <p>Additional protection against theft with Activation Lock, which requires an Apple ID and password to, erase data, or reactivate your device.</p>	<p>the communication device being equipped to receive signals from or send signals to engage (lock), disengage (unlock), or disable (make unavailable) locks;</p>	<p>22. The communication device [of claim 11] wherein the communication device is designed to be equipped with applications for the locking, disabling a lock, enabling a lock, and unlocking the locks of, but not limited to, containers, vehicles, houses and businesses, using a smart phone, cell phone, PDA, laptop or desktop</p>
<p>iPhone and iPad Touch ID is a seamless way to use your fingerprint as a passcode. Your fingerprint is one of the best passcodes in the world. With just a touch of your device's Home button, the Touch ID sensor quickly reads your fingerprint and automatically unlocks your phone.</p>	<p>the communication device being equipped with biometrics that incorporates at least one of a fingerprint recognition or a face recognition to at least one of gain access to the device or to prevent unauthorized use;</p>	<p>30. The communication device [of claim 11] wherein the communication device is designed to be used with or without biometrics for authentication and identification, with at least one of a fingerprint recognition, voice recognition, face recognition, hand geometry, retina scan, iris scan, heart rate, pulse or signature, thereby allowing access to the product by authorized, trained, and equipped individuals and preventing access to the product by unauthorized, untrained, and unequipped individuals.</p>

<p>NFC arrived on the iPhone 6 in 2014, it has been restricted to the contactless Apple Pay system. But at the Worldwide Developers Conference last week, Apple quietly announced that with the arrival of iOS 11 this fall, apps will be able to use an iPhone's NFC chip to read tags, pair with accessories, and exchange data with other NFC devices.</p>	<p>the communication device being capable of wireless near-field communication (NFC) which allows radio frequency (RF) data to be at least one of received or transferred between the communication device and at least one tag that is read by the communication device;</p>	<p>20. The communication device [of claim 11] wherein the communication device can be interconnected through wire or wireless for communication, signals, commands and transmission of data.</p>
<p>Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi). The cellular service, originally called 3G and now called LTE; this option allows the iPhone to connect to the internet anywhere cell phone works, to check emails. The iPhone's GPS chip is like that found in stand-alone GPS devices. The iPhone uses the GPS chip in conjunction with cell phone towers and Wi-Fi networks—in a process termed "assisted GPS"—to quickly calculate the phone's position.</p>	<p>whereupon a signal sent to the receiver of at least one of a multi-sensor detection device, a cell phone detection device, or a locking device from a satellite or a cell phone tower or through at least one of a Bluetooth connection, a WiFi connection, an internet connection, a cellular connection, a GPS connection, a short range radio frequency (RF) connection, or a long range radio frequency (RF) connection, causes a signal that includes at least one of location data or sensor data to be sent to the communication device; and</p>	<p>25. The communication device [of claim 11] wherein the communication device has at least one of a Bluetooth connection, a Wi-Fi connection, a short and long range radio frequency connection, a Cellular connection, a satellite connection, and a GPS connection.</p>

<p>Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi). The cellular service, originally called 3G and now called LTE; this option allows the iPone to connect to the internet anywhere cell phone works, to check emails. Apple chip A8X delivers better CPU and graphics performance than its predecessor. The iPhone 6's A8 processor has a dual-core model like the A7. The iPhone 6 has a 2GHz dual-core 20nm 64-bit A8 CPU.</p>	<p>wherein at least one of a satellite connection, Bluetooth connection, WiFi connection, internet connection, cellular connection, long range radio frequency (RF) connection, or short range radio frequency (RF) connection, capable of signal communication with the transmitter of the communication device, the receiver of the communication device, or the central processing unit (CPU).</p>	<p>28. The communication device [of claim 11] wherein the communication device can send and receive signals, send and receive warnings, send and receive commands, send and receive data, information and report the status of the sensors and operational equipment systems to and from a cell phone, smart phone, PDA or handheld device.</p>
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Apple's iPhone / iPad (monitoring equipment); Apple Watch (detection device); interconnected to the August Smart Lock (locking device)	Patent #: 9,589,439; Independent Claim 22	Patent #: RE 43,990; Dependent Claims
<p>Apple iPhone interconnected to Apple Watch detection device and the August Smart Lock locking device". August Smart Lock (e.g. locking device): Apple Watch (e.g. detection device) just got another tool to make life easier: a digital door key on their wrists. Initiate a lock or unlock from your Apple Watch with just a swipe and a tap. Apple Watch requires an iPhone and/or iPad (e.g. monitoring equipment). Watch app also instantly sends a notification when someone unlocks your door.</p>	<p>A communication device of at least one of a cell phone, a smart phone, a desktop, a handheld, a personal digital assistant (PDA), a laptop, or a computer terminal, comprising:</p>	<p>18. The communication device of claim 11 wherein the communication device having a basic monitoring terminal can be adapted and incorporated to include desktop computers, notebook, PC's, laptops, cell phones, smart phones, LCD monitors, and satellite monitoring</p>
<p>The heart rate bio-chemical sensor in Apple Watch uses photoplethysmography (heart rate (HR) and pulse oximeter oxygen saturation (SpO2) from wearable photoplethysmographic (PPG) biosensors). Technology based: Blood is red because it reflects red light and absorbs green light. Apple Watch uses green LED lights paired with light sensitive photodiodes to detect the amount of blood flowing through your wrist. When heart beats, the green light absorption is greater. By flashing its LED lights, Apple Watch can calculate the number of times the heart beats each minute; your heart rate.</p>	<p>at least one of a chemical sensor, a biological sensor, an explosive sensor, a human sensor, a contraband sensor, or a radiological sensor; that is wired or wireless, capable of being disposed within, on, upon or adjacent the communication device;</p>	<p>118. The multi-sensor detection system [of claim 103] wherein the cell phone, the smart phone, and the cell phone detector case have a plurality of sensors for detecting at least one of a chemical, biological, radiological, nuclear, explosive and contraband agents and compounds which are capable of being disposed within the cell phone, the smart phone, or the cell phone detector case.</p>

<p>Apple chip A8X delivers better CPU and graphics performance than its predecessor. With its 64-bit desktop-class architecture, iPad Air 2 is as powerful as many personal computers. It's power efficient, too, with a 10-hour battery life. The iPhone 6's A8 processor has a dual-core model like the A7, but clocked at a higher frequency. The iPhone 6 has a 2GHz dual-core 20nm 64-bit A8 CPU.</p>	<p>at least one of a central processing unit (CPU), a network processor, or a front end processor for communication between a host computer and other devices;</p>	<p>12. The communication device [of claim 11] wherein each communication device includes at least one of an internet connection, a GPS connection, a radio frequency (RF) connection, or a central processing unit (cpu).</p>
<p>If your iPhone, iPad, or iPod touch is lost or stolen. Turn on Lost Mode. Using Lost Mode, a person can remotely lock the device with a four-digit passcode, and display a custom message with your phone number on your missing device's Lock screen</p>	<p>a transmitter for transmitting signals and messages to at least one of a multi-sensor detection device, a cell phone detection device, or a locking device;</p>	<p>28. The communication device [of claim 11] wherein the communication device can send and receive signals, send and receive warnings, send and receive commands, send and receive data, information and report the status of the sensors and operational equipment systems to and from a cell phone, smart phone, PDA or handheld device.</p>
<p>If your iPhone, iPad, or iPod touch is lost or stolen. Turn on Lost Mode. Using Lost Mode, a person can remotely lock the device with a four-digit passcode, and display a custom message with your phone number on your missing device's Lock screen</p>	<p>a receiver for receiving signals, data or messages from at least one of a multi-sensor detection device, a cell phone detection device, or a locking device;</p>	<p>28. The communication device [of claim 11] wherein the communication device can send and receive signals, send and receive warnings, send and receive commands, send and receive data, information and report the status of the sensors and operational equipment systems to and from a cell phone, smart phone, PDA or handheld device.</p>

<p>Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi). The cellular service, originally called 3G and now called LTE; this option allows the iPhone to connect to the internet anywhere cell phone works, to check emails. The iPhone's GPS chip is like that found in stand-alone GPS devices. The iPhone uses the GPS chip in conjunction with cell phone towers and Wi-Fi networks—in a process termed "assisted GPS"—to quickly calculate the phone's position.</p>	<p>at least one of a satellite connection, Bluetooth connection, WiFi connection, internet connection, cellular connection, long and/or short range radio frequency (RF) connection, or GPS connection;</p>	<p>25. The communication device [of claim 11] wherein the communication device has at least one of a Bluetooth connection, a Wi-Fi connection, a short and long range radio frequency connection, a Cellular connection, a satellite connection, and a GPS connection.</p>
<p>Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi). iPhone and iPad Touch ID use fingerprint as a passcode. Fingerprint one of best passcodes in the world. With just a touch of the device's Home button, the Touch ID sensor quickly reads a fingerprint and automatically unlocks the phone.</p>	<p>the communication device being at least a fixed, portable or mobile communication device, equipped with at least one wired or wireless sensor for the detection of humans;</p>	<p>30. The communication device [of claim 11] wherein the communication device is designed to be used with or without biometrics for authentication and identification, with at least one of a fingerprint recognition, voice recognition, face recognition, hand geometry, retina scan, iris scan, heart rate, pulse or signature, thereby allowing access to the product by authorized, trained, and equipped individuals and preventing access to the product by unauthorized, untrained, and unequipped individuals.</p>

<p>If the Apple Touch ID doesn't recognize your finger, you'll be asked to try again. After multiple failed attempts, you'll be given the option of entering your Apple ID password. In addition, you will need to enter your Apple ID password after: (1) Restarting your device, and (2) Enrolling or deleting fingers. If your device is lost or stolen, you can immediately disable Touch ID from being used to unlock your device with Find My iPhone Lost Mode.</p> <p>Additional protection against theft with Activation Lock, which requires an Apple ID and password to, erase data, or reactivate your device.</p>	<p>the communication device being equipped to receive signals from or send signals to engage (lock), disengage (unlock), or disable (make unavailable) locks;</p>	<p>22. The communication device [of claim 11] wherein the communication device is designed to be equipped with applications for the locking, disabling a lock, enabling a lock, and unlocking the locks of, but not limited to, containers, vehicles, houses and businesses, using a smart phone, cell phone, PDA, laptop or desktop</p>
<p>iPhone and iPad Touch ID is a seamless way to use your fingerprint as a passcode. Your fingerprint is one of the best passcodes in the world. With just a touch of your device's Home button, the Touch ID sensor quickly reads your fingerprint and automatically unlocks your phone.</p>	<p>the communication device being equipped with biometrics that incorporates at least one of a fingerprint recognition or a face recognition to at least one of gain access to the device or to prevent unauthorized use;</p>	<p>30. The communication device [of claim 11] wherein the communication device is designed to be used with or without biometrics for authentication and identification, with at least one of a fingerprint recognition, voice recognition, face recognition, hand geometry, retina scan, iris scan, heart rate, pulse or signature, thereby allowing access to the product by authorized, trained, and equipped individuals and preventing access to the product by unauthorized, untrained, and unequipped individuals.</p>

<p>NFC arrived on the iPhone 6 in 2014, it has been restricted to the contactless Apple Pay system. But at the Worldwide Developers Conference last week, Apple quietly announced that with the arrival of iOS 11 this fall, apps will be able to use an iPhone's NFC chip to read tags, pair with accessories, and exchange data with other NFC devices.</p>	<p>the communication device being capable of wireless near-field communication (NFC) which allows radio frequency (RF) data to be at least one of received or transferred between the communication device and at least one tag that is read by the communication device;</p>	<p>20. The communication device [of claim 11] wherein the communication device can be interconnected through wire or wireless for communication, signals, commands and transmission of data.</p>
<p>Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi). The cellular service, originally called 3G and now called LTE; this option allows the iPhone to connect to the internet anywhere cell phone works, to check emails. The iPhone's GPS chip is like that found in stand-alone GPS devices. The iPhone uses the GPS chip in conjunction with cell phone towers and Wi-Fi networks—in a process termed "assisted GPS"—to quickly calculate the phone's position.</p>	<p>whereupon a signal sent to the receiver of at least one of a multi-sensor detection device, a cell phone detection device, or a locking device from a satellite or a cell phone tower or through at least one of a Bluetooth connection, a WiFi connection, an internet connection, a cellular connection, a GPS connection, a short range radio frequency (RF) connection, or a long range radio frequency (RF) connection, causes a signal that includes at least one of location data or sensor data to be sent to the communication device; and</p>	<p>25. The communication device [of claim 11] wherein the communication device has at least one of a Bluetooth connection, a Wi-Fi connection, a short and long range radio frequency connection, a Cellular connection, a satellite connection, and a GPS connection.</p>

<p>Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi). The cellular service, originally called 3G and now called LTE; this option allows the iPhone to connect to the internet anywhere cell phone works, to check emails. Apple chip A8X delivers better CPU and graphics performance than its predecessor. The iPhone 6's A8 processor has a dual-core model like the A7. The iPhone 6 has a 2GHz dual-core 20nm 64-bit A8 CPU.</p>	<p>wherein at least one of a satellite connection, Bluetooth connection, WiFi connection, internet connection, cellular connection, long range radio frequency (RF) connection, or short range radio frequency (RF) connection, capable of signal communication with the transmitter of the communication device, the receiver of the communication device, or the central processing unit (CPU).</p>	<p>28. The communication device [of claim 11] wherein the communication device can send and receive signals, send and receive warnings, send and receive commands, send and receive data, information and report the status of the sensors and operational equipment systems to and from a cell phone, smart phone, PDA or handheld device.</p>
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Apple's iPhone / iPad (monitoring equipment); Apple Watch (detection device); Apple's HomeKit; August Connect; interconnected to the August Smart Lock (locking device)	Patent #: 9,589,439; Independent Claim 22	Patent #: RE 43,990; Dependent Claims
<p>Use Siri on your iPhone, iPad or iPod touch to lock and unlock, and check the status of your August Smart Lock. The HomeKit logo means an electronic accessory has been designed to connect specifically to iPod, iPhone, or iPad e.g. monitoring equipment). The August Connect is an accessory product to the August Smart Lock, and part of the August Smart Home Access System. August Connect requires an August Smart Lock and works with the free August iOS or Android app. Uses Wi-Fi to connect to your phone.</p>	<p>A communication device of at least one of a cell phone, a smart phone, a desktop, a handheld, a personal digital assistant (PDA), a laptop, or a computer terminal, comprising:</p>	<p>18. The communication device of claim 11 wherein the communication device having a basic monitoring terminal can be adapted and incorporated to include desktop computers, notebook, PC's, laptops, cell phones, smart phones, LCD monitors, and satellite monitoring</p>
<p>The heart rate bio-chemical sensor in Apple Watch uses photoplethysmography (heart rate (HR) and pulse oximeter oxygen saturation (SpO2) from wearable photoplethysmographic (PPG) biosensors). Technology based: Blood is red because it reflects red light and absorbs green light. Apple Watch uses green LED lights paired with light sensitive photodiodes to detect the amount of blood flowing through your wrist. When heart beats, the green light absorption is greater. By flashing its LED lights, Apple Watch can calculate the number of times the heart beats each minute; your heart rate.</p>	<p>at least one of a chemical sensor, a biological sensor, an explosive sensor, a human sensor, a contraband sensor, or a radiological sensor; that is wired or wireless, capable of being disposed within, on, upon or adjacent the communication device;</p>	<p>118. The multi-sensor detection system [of claim 103] wherein the cell phone, the smart phone, and the cell phone detector case have a plurality of sensors for detecting at least one of a chemical, biological, radiological, nuclear, explosive and contraband agents and compounds which are capable of being disposed within the cell phone, the smart phone, or the cell phone detector case.</p>

<p>Apple chip A8X delivers better CPU and graphics performance than its predecessor. With its 64-bit desktop-class architecture, iPad Air 2 is as powerful as many personal computers. It's power efficient, too, with a 10-hour battery life. The iPhone 6's A8 processor has a dual-core model like the A7, but clocked at a higher frequency. The iPhone 6 has a 2GHz dual-core 20nm 64-bit A8 CPU.</p>	<p>at least one of a central processing unit (CPU), a network processor, or a front end processor for communication between a host computer and other devices;</p>	<p>12. The communication device [of claim 11] wherein each communication device includes at least one of an internet connection, a GPS connection, a radio frequency (RF) connection, or a central processing unit (cpu).</p>
<p>If your iPhone, iPad, or iPod touch is lost or stolen. Turn on Lost Mode. Using Lost Mode, a person can remotely lock the device with a four-digit passcode, and display a custom message with your phone number on your missing device's Lock screen</p>	<p>a transmitter for transmitting signals and messages to at least one of a multi-sensor detection device, a cell phone detection device, or a locking device;</p>	<p>28. The communication device [of claim 11] wherein the communication device can send and receive signals, send and receive warnings, send and receive commands, send and receive data, information and report the status of the sensors and operational equipment systems to and from a cell phone, smart phone, PDA or handheld device.</p>
<p>If your iPhone, iPad, or iPod touch is lost or stolen. Turn on Lost Mode. Using Lost Mode, a person can remotely lock the device with a four-digit passcode, and display a custom message with your phone number on your missing device's Lock screen</p>	<p>a receiver for receiving signals, data or messages from at least one of a multi-sensor detection device, a cell phone detection device, or a locking device;</p>	<p>28. The communication device [of claim 11] wherein the communication device can send and receive signals, send and receive warnings, send and receive commands, send and receive data, information and report the status of the sensors and operational equipment systems to and from a cell phone, smart phone, PDA or handheld device.</p>

<p>Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi). The cellular service, originally called 3G and now called LTE; this option allows the iPhone to connect to the internet anywhere cell phone works, to check emails. The iPhone's GPS chip is like that found in stand-alone GPS devices. The iPhone uses the GPS chip in conjunction with cell phone towers and Wi-Fi networks—in a process termed "assisted GPS"—to quickly calculate the phone's position.</p>	<p>at least one of a satellite connection, Bluetooth connection, WiFi connection, internet connection, cellular connection, long and/or short range radio frequency (RF) connection, or GPS connection;</p>	<p>25. The communication device [of claim 11] wherein the communication device has at least one of a Bluetooth connection, a Wi-Fi connection, a short and long range radio frequency connection, a Cellular connection, a satellite connection, and a GPS connection.</p>
<p>Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi). iPhone and iPad Touch ID use fingerprint as a passcode. Fingerprint one of best passcodes in the world. With just a touch of the device's Home button, the Touch ID sensor quickly reads a fingerprint and automatically unlocks the phone.</p>	<p>the communication device being at least a fixed, portable or mobile communication device, equipped with at least one wired or wireless sensor for the detection of humans;</p>	<p>30. The communication device [of claim 11] wherein the communication device is designed to be used with or without biometrics for authentication and identification, with at least one of a fingerprint recognition, voice recognition, face recognition, hand geometry, retina scan, iris scan, heart rate, pulse or signature, thereby allowing access to the product by authorized, trained, and equipped individuals and preventing access to the product by unauthorized, untrained, and unequipped individuals.</p>

<p>If the Apple Touch ID doesn't recognize your finger, you'll be asked to try again. After multiple failed attempts, you'll be given the option of entering your Apple ID password. In addition, you will need to enter your Apple ID password after: (1) Restarting your device, and (2) Enrolling or deleting fingers. If your device is lost or stolen, you can immediately disable Touch ID from being used to unlock your device with Find My iPhone Lost Mode. Additional protection against theft with Activation Lock, which requires an Apple ID and password to, erase data, or reactivate your device.</p>	<p>the communication device being equipped to receive signals from or send signals to engage (lock), disengage (unlock), or disable (make unavailable) locks;</p>	<p>22. The communication device [of claim 11] wherein the communication device is designed to be equipped with applications for the locking, disabling a lock, enabling a lock, and unlocking the locks of, but not limited to, containers, vehicles, houses and businesses, using a smart phone, cell phone, PDA, laptop or desktop</p>
<p>iPhone and iPad Touch ID is a seamless way to use your fingerprint as a passcode. Your fingerprint is one of the best passcodes in the world. With just a touch of your device's Home button, the Touch ID sensor quickly reads your fingerprint and automatically unlocks your phone.</p>	<p>the communication device being equipped with biometrics that incorporates at least one of a fingerprint recognition or a face recognition to at least one of gain access to the device or to prevent unauthorized use;</p>	<p>30. The communication device [of claim 11] wherein the communication device is designed to be used with or without biometrics for authentication and identification, with at least one of a fingerprint recognition, voice recognition, face recognition, hand geometry, retina scan, iris scan, heart rate, pulse or signature, thereby allowing access to the product by authorized, trained, and equipped individuals and preventing access to the product by unauthorized, untrained, and unequipped individuals.</p>

<p>NFC arrived on the iPhone 6 in 2014, it has been restricted to the contactless Apple Pay system. But at the Worldwide Developers Conference last week, Apple quietly announced that with the arrival of iOS 11 this fall, apps will be able to use an iPhone's NFC chip to read tags, pair with accessories, and exchange data with other NFC devices.</p>	<p>the communication device being capable of wireless near-field communication (NFC) which allows radio frequency (RF) data to be at least one of received or transferred between the communication device and at least one tag that is read by the communication device;</p>	<p>20. The communication device [of claim 11] wherein the communication device can be interconnected through wire or wireless for communication, signals, commands and transmission of data.</p>
<p>Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi). The cellular service, originally called 3G and now called LTE; this option allows the iPhone to connect to the internet anywhere cell phone works, to check emails. The iPhone's GPS chip is like that found in stand-alone GPS devices. The iPhone uses the GPS chip in conjunction with cell phone towers and Wi-Fi networks—in a process termed "assisted GPS"—to quickly calculate the phone's position.</p>	<p>whereupon a signal sent to the receiver of at least one of a multi-sensor detection device, a cell phone detection device, or a locking device from a satellite or a cell phone tower or through at least one of a Bluetooth connection, a WiFi connection, an internet connection, a cellular connection, a GPS connection, a short range radio frequency (RF) connection, or a long range radio frequency (RF) connection, causes a signal that includes at least one of location data or sensor data to be sent to the communication device; and</p>	<p>25. The communication device [of claim 11] wherein the communication device has at least one of a Bluetooth connection, a Wi-Fi connection, a short and long range radio frequency connection, a Cellular connection, a satellite connection, and a GPS connection.</p>

<p>Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi). The cellular service, originally called 3G and now called LTE; this option allows the iPhone to connect to the internet anywhere cell phone works, to check emails. Apple chip A8X delivers better CPU and graphics performance than its predecessor. The iPhone 6's A8 processor has a dual-core model like the A7. The iPhone 6 has a 2GHz dual-core 20nm 64-bit A8 CPU.</p>	<p>wherein at least one of a satellite connection, Bluetooth connection, WiFi connection, internet connection, cellular connection, long range radio frequency (RF) connection, or short range radio frequency (RF) connection, capable of signal communication with the transmitter of the communication device, the receiver of the communication device, or the central processing unit (CPU).</p>	<p>28. The communication device [of claim 11] wherein the communication device can send and receive signals, send and receive warnings, send and receive commands, send and receive data, information and report the status of the sensors and operational equipment systems to and from a cell phone, smart phone, PDA or handheld device.</p>
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Apple's iPhone / iPad (monitoring equipment); Apple Watch (detection device); interconnected to Ford's MyFord Mobile App (locking device)	Patent #: 9,589,439; Independent Claim 22	Patent #: RE 43,990; Dependent Claims
<p>Ford has updated the MyFord Mobile app (e.g. locking device) for its electric and hybrid cars with Apple Watch (e.g. detection device) compatibility. Apple Watch requires an iPhone and/or iPad (e.g. monitoring equipment). That means from your wrist, you can turn on the temperature controller, lock or unlock the doors, check mileage, check car battery status, get directions back to car from Apple Watch. The MyFord Mobile app, which is available on iOS, has been around since 2012.</p>	<p>A communication device of at least one of a cell phone, a smart phone, a desktop, a handheld, a personal digital assistant (PDA), a laptop, or a computer terminal, comprising:</p>	<p>18. The communication device of claim 11 wherein the communication device having a basic monitoring terminal can be adapted and incorporated to include desktop computers, notebook, PC's, laptops, cell phones, smart phones, LCD monitors, and satellite monitoring</p>
<p>The heart rate bio-chemical sensor in Apple Watch uses photoplethysmography (heart rate (HR) and pulse oximeter oxygen saturation (SpO₂) from wearable photoplethysmographic (PPG) biosensors). Technology based: Blood is red because it reflects red light and absorbs green light. Apple Watch uses green LED lights paired with light sensitive photodiodes to detect the amount of blood flowing through your wrist. When heart beats, the green light absorption is greater. By flashing its LED lights, Apple Watch can calculate the number of times the heart beats each minute; your heart rate.</p>	<p>at least one of a chemical sensor, a biological sensor, an explosive sensor, a human sensor, a contraband sensor, or a radiological sensor; that is wired or wireless, capable of being disposed within, on, upon or adjacent the communication device;</p>	<p>118. The multi-sensor detection system [of claim 103] wherein the cell phone, the smart phone, and the cell phone detector case have a plurality of sensors for detecting at least one of a chemical, biological, radiological, nuclear, explosive and contraband agents and compounds which are capable of being disposed within the cell phone, the smart phone, or the cell phone detector case.</p>

<p>Apple chip A8X delivers better CPU and graphics performance than its predecessor. With its 64-bit desktop-class architecture, iPad Air 2 is as powerful as many personal computers. It's power efficient, too, with a 10-hour battery life. The iPhone 6's A8 processor has a dual-core model like the A7. The iPhone 6 has a 2GHz dual-core 20nm 64-bit A8 CPU.</p>	<p>at least one of a central processing unit (CPU), a network processor, or a front end processor for communication between a host computer and other devices;</p>	<p>12. The communication device [of claim 11] wherein each communication device includes at least one of an internet connection, a GPS connection, a radio frequency (RF) connection, or a central processing unit (cpu).</p>
<p>If your iPhone, iPad, or iPod touch is lost or stolen. Turn on Lost Mode. Using Lost Mode, a person can remotely lock the device with a four-digit passcode, and display a custom message with your phone number on your missing device's Lock screen</p>	<p>a transmitter for transmitting signals and messages to at least one of a multi-sensor detection device, a cell phone detection device, or a locking device;</p>	<p>28. The communication device [of claim 11] wherein the communication device can send and receive signals, send and receive warnings, send and receive commands, send and receive data, information and report the status of the sensors and operational equipment systems to and from a cell phone, smart phone, PDA or handheld device.</p>
<p>If your iPhone, iPad, or iPod touch is lost or stolen. Turn on Lost Mode. Using Lost Mode, a person can remotely lock the device with a four-digit passcode, and display a custom message with your phone number on your missing device's Lock screen</p>	<p>a receiver for receiving signals, data or messages from at least one of a multi-sensor detection device, a cell phone detection device, or a locking device;</p>	<p>28. The communication device [of claim 11] wherein the communication device can send and receive signals, send and receive warnings, send and receive commands, send and receive data, information and report the status of the sensors and operational equipment systems to and from a cell phone, smart phone, PDA or handheld device.</p>

<p>Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi). The iPhone and iPad Touch ID use fingerprint as a passcode. Fingerprint one of best passcodes in the world. With just a touch of the device's Home button, the Touch ID sensor quickly reads a fingerprint and automatically unlocks the phone.</p>	<p>the communication device being at least a fixed, portable or mobile communication device, equipped with at least one wired or wireless sensor for the detection of humans;</p>	<p>30. The communication device [of claim 11] wherein the communication device is designed to be used with or without biometrics for authentication and identification, with at least one of a fingerprint recognition, voice recognition, face recognition, hand geometry, retina scan, iris scan, heart rate, pulse or signature, thereby allowing access to the product by authorized, trained, and equipped individuals and preventing access to the product by unauthorized, untrained, and unequipped individuals.</p>

<p>If the Apple Touch ID doesn't recognize your finger, you'll be asked to try again. After multiple failed attempts, you'll be given the option of entering your Apple ID password. In addition, you will need to enter your Apple ID password after: (1) Restarting your device, and (2) Enrolling or deleting fingers. If your device is lost or stolen, you can immediately disable Touch ID from being used to unlock your device with Find My iPhone Lost Mode.</p> <p>Additional protection against theft with Activation Lock, which requires an Apple ID and password to, erase data, or reactivate your device.</p>	<p>the communication device being equipped to receive signals from or send signals to engage (lock), disengage (unlock), or disable (make unavailable) locks;</p>	<p>22. The communication device [of claim 11] wherein the communication device is designed to be equipped with applications for the locking, disabling a lock, enabling a lock, and unlocking the locks of, but not limited to, containers, vehicles, houses and businesses, using a smart phone, cell phone, PDA, laptop or desktop</p>
<p>iPhone and iPad Touch ID is a seamless way to use your fingerprint as a passcode. Your fingerprint is one of the best passcodes in the world. With just a touch of your device's Home button, the Touch ID sensor quickly reads your fingerprint and automatically unlocks your phone.</p>	<p>the communication device being equipped with biometrics that incorporates at least one of a fingerprint recognition or a face recognition to at least one of gain access to the device or to prevent unauthorized use;</p>	<p>30. The communication device [of claim 11] wherein the communication device is designed to be used with or without biometrics for authentication and identification, with at least one of a fingerprint recognition, voice recognition, face recognition, hand geometry, retina scan, iris scan, heart rate, pulse or signature, thereby allowing access to the product by authorized, trained, and equipped individuals and preventing access to the product by unauthorized, untrained, and unequipped individuals.</p>

<p>NFC arrived on the iPhone 6 in 2014, it has been restricted to the contactless Apple Pay system. But at the Worldwide Developers Conference last week, Apple quietly announced that with the arrival of iOS 11 this fall, apps will be able to use an iPhone's NFC chip to read tags, pair with accessories, and exchange data with other NFC devices.</p>	<p>the communication device being capable of wireless near-field communication (NFC) which allows radio frequency (RF) data to be at least one of received or transferred between the communication device and at least one tag that is read by the communication device;</p>	<p>20. The communication device [of claim 11] wherein the communication device can be interconnected through wire or wireless for communication, signals, commands and transmission of data.</p>
<p>Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi). The cellular service, originally called 3G and now called LTE; this option allows the iPhone to connect to the internet anywhere cell phone works, to check emails. The iPhone's GPS chip is like that found in stand-alone GPS devices. The iPhone uses the GPS chip in conjunction with cell phone towers and Wi-Fi networks—in a process termed "assisted GPS"—to quickly calculate the phone's position.</p>	<p>whereupon a signal sent to the receiver of at least one of a multi-sensor detection device, a cell phone detection device, or a locking device from a satellite or a cell phone tower or through at least one of a Bluetooth connection, a WiFi connection, an internet connection, a cellular connection, a GPS connection, a short range radio frequency (RF) connection, or a long range radio frequency (RF) connection, causes a signal that includes at least one of location data or sensor data to be sent to the communication device; and</p>	<p>25. The communication device [of claim 11] wherein the communication device has at least one of a Bluetooth connection, a Wi-Fi connection, a short and long range radio frequency connection, a Cellular connection, a satellite connection, and a GPS connection.</p>

<p>Every iPhone and iPad ever made has both WiFi and Bluetooth, two wireless technologies for connecting to nearby devices (in the case of Bluetooth) and the internet (in the case of WiFi). The cellular service, originally called 3G and now called LTE; this option allows the iPhone to connect to the internet anywhere cell phone works, to check emails. Apple chip A8X delivers better CPU and graphics performance than its predecessor. The iPhone 6's A8 processor has a dual-core model like the A7. The iPhone 6 has a 2GHz dual-core 20nm 64-bit A8 CPU.</p>	<p>wherein at least one of a satellite connection, Bluetooth connection, WiFi connection, internet connection, cellular connection, long range radio frequency (RF) connection, or short range radio frequency (RF) connection, capable of signal communication with the transmitter of the communication device, the receiver of the communication device, or the central processing unit (CPU).</p>	<p>28. The communication device [of claim 11] wherein the communication device can send and receive signals, send and receive warnings, send and receive commands, send and receive data, information and report the status of the sensors and operational equipment systems to and from a cell phone, smart phone, PDA or handheld device.</p>
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Samsung Galaxy s6 "Fingertip Heart Rate Monitor"	Patent #: 9,589,439; Independent Claim 22	Patent #: RE 43,990; Dependent Claims
<p>Samsung included in the Galaxy S5 and S6 (e.g. multi-sensor detection device) its built-in Heart Rate Monitor, letting you keep up on your health with no additional accessories required. Even better, Samsung integrated its heart rate sensing technology into the same housing that holds the camera's LED flash.</p> <p>The Galaxy S5 and S6 handles all health-related functions — including its Heart Rate Monitor — in Samsung's S Health app on your phone.</p>	<p>A communication device of at least one of a cell phone, a smart phone, a desktop, a handheld, a personal digital assistant (PDA), a laptop, or a computer terminal, comprising:</p>	<p>18. The communication device of claim 11 wherein the communication device having a basic monitoring terminal can be adapted and incorporated to include desktop computers, notebook, PC's, laptops, cell phones, smart phones, LCD monitors, and satellite monitoring</p>
<p>You'll be taken to a screen that gives you a prompt to place your finger on the heart rate sensor, which can be found on the back of the phone. The Samsung Galaxy S5 and S6, a phone (e.g. cell phone detection device) with a built-in monitor that measures heart rate from your fingertip using an optical sensor, tested almost exactly in sync with the EKG.</p> <p>The Galaxy S5 and S6's accuracy comes down to biology. There's an arterial vessel at the tip of your forefinger that keeps up with the fastest pulsations of your heart and is easy to read.</p>	<p>at least one of a chemical sensor, a biological sensor, an explosive sensor, a human sensor, a contraband sensor, or a radiological sensor; that is wired or wireless, capable of being disposed within, on, upon or adjacent the communication device;</p>	<p>118. The multi-sensor detection system [of claim 103] wherein the cell phone, the smart phone, and the cell phone detector case have a plurality of sensors for detecting at least one of a chemical, biological, radiological, nuclear, explosive and contraband agents and compounds which are capable of being disposed within the cell phone, the smart phone, or the cell phone detector case.</p>

<p>Samsung Galaxy s6 CPU (Central Processing Unit) - otherwise known as a processor - is an electronic circuit that can execute computer programs. The Samsung Galaxy S6 SM-G920i 32GB is a good Android phone with 2100 MHz processor 8-core that allows the user run heavy applications. The Samsung Galaxy S6 smartphones and tables don't just use "processors", they use what's called a System-on-a-chip (SoC). The SoC is the equivalent of a computer motherboard, including main processor, graphics processor and memory, on a single chip. The CPU is nonetheless a must-have component of the SoC. Modern SoCs have two, and soon four, processors cores ("multi-core")</p>	<p>at least one of a central processing unit (CPU), a network processor, or a front end processor for communication between a host computer and other devices;</p>	<p>12. The communication device [of claim 11] wherein each communication device includes at least one of an internet connection, a GPS connection, a radio frequency (RF) connection, or a central processing unit (cpu).</p>
<p>The Samsung Galaxy S6 capable of automatically transmitting a signal to lock after several failed log-in attempts. The Samsung Galaxy S6 "Fingertip Heart Rate Monitor" detection device (e.g. cell phone detection device) is a built-in monitor that measures heart rate from a fingertip using a biosensor.</p>	<p>a transmitter for transmitting signals and messages to at least one of a multi-sensor detection device, a cell phone detection device, or a locking device;</p>	<p>28. The communication device [of claim 11] wherein the communication device can send and receive signals, send and receive warnings, send and receive commands, send and receive data, information and report the status of the sensors and operational equipment systems to and from a cell phone, smart phone, PDA or handheld device.</p>

<p>The Samsung Galaxy S6 capable of receiving a signal to reset (e.g. unlock; locking device) the phone. The Samsung Galaxy S6 "Fingertip Heart Rate Monitor" detection device (e.g. cell phone detection device) is a built-in monitor that measures heart rate from a fingertip using a biosensor.</p>	<p>a receiver for receiving signals, data or messages from at least one of a multi-sensor detection device, a cell phone detection device, or a locking device;</p>	<p>28. The communication device [of claim 11] wherein the communication device can send and receive signals, send and receive warnings, send and receive commands, send and receive data, information and report the status of the sensors and operational equipment systems to and from a cell phone, smart phone, PDA or handheld device.</p>
<p>Cellular data connection: The connection that the Galaxy s6 uses to exchange data over the air using your mobile operator's cellular network. Cellular network connection: the Galaxy s6 uses for voice and data connect. This network is managed by the mobile operator. WLAN: Wi-Fi 802.11 a/b/g/n/ac, dual-band, Wi-Fi Direct, hotspot. Bluetooth: v4.1, A2DP, LE,</p>	<p>at least one of a satellite connection, Bluetooth connection, WiFi connection, internet connection, cellular connection, long and/or short range radio frequency (RF) connection, or GPS connection;</p>	<p>25. The communication device [of claim 11] wherein the communication device has at least one of a Bluetooth connection, a Wi-Fi connection, a short and long range radio frequency connection, a Cellular connection, a satellite connection, and a GPS connection.</p>
<p>Seven wireless interfaces in the Samsung Galaxy S6 smartphone - Frequency Division Duplex Cellular, Time Division Duplex Cellular, Wi-Fi, Bluetooth, GNSS (Global Navigation Satellite System), Near-Field Communication, and Wireless Charging. Samsung allows 4 fingerprints to set-up the fingerprint scanner; for log-in and lock-out. Samsung's Face unlock uses the front-facing camera to identify the user and unlock the device. Samsung's iris scanning method, uses special sensors on front of phone to identify and unlock the device.</p>	<p>the communication device being at least a fixed, portable or mobile communication device, equipped with at least one wired or wireless sensor for the detection of humans;</p>	<p>30. The communication device [of claim 11] wherein the communication device is designed to be used with or without biometrics for authentication and identification, with at least one of a fingerprint recognition, voice recognition, face recognition, hand geometry, retina scan, iris scan, heart rate, pulse or signature, thereby allowing access to the product by authorized, trained, and equipped individuals and preventing access to the product by unauthorized, untrained, and unequipped individuals.</p>

<p>After several unsuccessful log-in attempts using a passcode or fingerprint, a Samsung device automatically locks itself up as a security feature. If user is unable to log in after doing all the security layers, there's no other option but to have the phone unlocked. Samsung's near-field communication (NFC) enabled smartphone: slide hand on the back and the NFC Ring can unlock it. The NFC Ring comes with two special NFC tag inlays inside the ring. The NFC Ring can be used to unlock & control mobile devices</p>	<p>the communication device being equipped to receive signals from or send signals to engage (lock), disengage (unlock), or disable (make unavailable) locks;</p>	<p>22. The communication device [of claim 11] wherein the communication device is designed to be equipped with applications for the locking, disabling a lock, enabling a lock, and unlocking the locks of, but not limited to, containers, vehicles, houses and businesses, using a smart phone, cell phone, PDA, laptop or desktop</p>
<p>Samsung only allows you to register 4 fingerprints to set-up the fingerprint scanner; a security feature for easy log-in and lock-out. Samsung's new Face unlock feature uses the front-facing camera to identify the user and unlock the device. Samsung has included an iris scanning method, which uses special sensors on the front of the phone to identify you and unlock the device. Iris scanning is considered one of the most secure biometric methods</p>	<p>the communication device being equipped with biometrics that incorporates at least one of a fingerprint recognition or a face recognition to at least one of gain access to the device or to prevent unauthorized use;</p>	<p>30. The communication device [of claim 11] wherein the communication device is designed to be used with or without biometrics for authentication and identification, with at least one of a fingerprint recognition, voice recognition, face recognition, hand geometry, retina scan, iris scan, heart rate, pulse or signature, thereby allowing access to the product by authorized, trained, and equipped individuals and preventing access to the product by unauthorized, untrained, and unequipped individuals.</p>

<p>Seven wireless interfaces now found in the Samsung Galaxy S6 high-end smartphone - Frequency Division Duplex Cellular, Time Division Duplex Cellular, Wi-Fi, Bluetooth, GNSS (Global Navigation Satellite System), Near-Field Communication, and Wireless Charging</p>	<p>the communication device being capable of wireless near-field communication (NFC) which allows radio frequency (RF) data to be at least one of received or transferred between the communication device and at least one tag that is read by the communication device;</p>	<p>20. The communication device [of claim 11] wherein the communication device can be interconnected through wire or wireless for communication, signals, commands and transmission of data.</p>
<p>Cellular data connection: The connection that the Galaxy s6 uses to exchange data over the air using your mobile operator's cellular network. Cellular network connection: The network that the Galaxy s6 uses for making voice and data connections. This network is managed by the mobile operator. WLAN: WiFi 802.11, WiFi Direct, hotspot. Bluetooth: v4.1, A2DP, LE, apt-X. The Galaxy can determine location using its built-in Global Positioning System (GPS) transmitter, WiFi networks, and mobile networks.</p>	<p>whereupon a signal sent to the receiver of at least one of a multi-sensor detection device, a cell phone detection device, or a locking device from a satellite or a cell phone tower or through at least one of a Bluetooth connection, a WiFi connection, an internet connection, a cellular connection, a GPS connection, a short range radio frequency (RF) connection, or a long range radio frequency (RF) connection, causes a signal that includes at least one of location data or sensor data to be sent to the communication device; and</p>	<p>25. The communication device [of claim 11] wherein the communication device has at least one of a Bluetooth connection, a WiFi connection, a short and long range radio frequency connection, a Cellular connection, a satellite connection, and a GPS connection.</p>
<p>The Samsung Galaxy S6 capable of automatically transmitting a signal to lock after several failed log-in attempts. The Samsung Galaxy S6 capable of receiving a signal to reset (e.g. unlock; locking device). Thereby activating or deactivating a security system.</p>	<p>wherein at least one of a satellite connection, Bluetooth connection, WiFi connection, internet connection, cellular connection, long range radio frequency (RF) connection, or short range radio frequency (RF) connection, capable of signal communication with the transmitter of the communication device, the receiver of the communication device, or the central processing unit (CPU).</p>	<p>28. The communication device [of claim 11] wherein the communication device can send and receive signals, send and receive warnings, send and receive commands, send and receive data, information and report the status of the sensors and operational equipment systems to and from a cell phone, smart phone, PDA or handheld device.</p>

Samsung Galaxy s6 interconnected to the "Samsung Gear S2 Smartwatch"	Patent #: 9,589,439; Independent Claim 22	Patent #: RE 43,990; Dependent Claims
<p>The Samsung Gear S2 smartwatch (e.g. multi-sensor detection device: interconnected to monitoring equipment – Samsung Galaxy s6; biosensor for detecting heart rate; leveraged internet and GPS connections; power source battery) has a solid health tracking and slightly better battery life than other high-end smartwatches. It works with a variety of Android phones.</p>	<p>A communication device of at least one of a cell phone, a smart phone, a desktop, a handheld, a personal digital assistant (PDA), a laptop, or a computer terminal, comprising:</p>	<p>18. The communication device of claim 11 wherein the communication device having a basic monitoring terminal can be adapted and incorporated to include desktop computers, notebook, PC's, laptops, cell phones, smart phones, LCD monitors, and satellite monitoring</p>
<p>The Gear S2 need to connect to a mobile device (e.g. Galaxy S6) using the Samsung Gear application. The application must be installed on the mobile device (e.g. Galaxy S6). The Gear S2 sensors include: Accelerometer; Gyroscope; Heart Rate; Ambient Light; and, Barometer. Connectivity include: 802.11n WiFi; Bluetooth 4.1; NFC. GPS include: The Gear S2 3G includes a GPS receiver and two apps, Nike+ and S Health, that include GPS tracking support.</p>	<p>at least one of a chemical sensor, a biological sensor, an explosive sensor, a human sensor, a contraband sensor, or a radiological sensor; that is wired or wireless, capable of being disposed within, on, upon or adjacent the communication device;</p>	<p>118. The multi-sensor detection system [of claim 103] wherein the cell phone, the smart phone, and the cell phone detector case have a plurality of sensors for detecting at least one of a chemical, biological, radiological, nuclear, explosive and contraband agents and compounds which are capable of being disposed within the cell phone, the smart phone, or the cell phone detector case.</p>

<p>Samsung Galaxy s6 CPU (Central Processing Unit) - otherwise known as a processor - is an electronic circuit that can execute computer programs. The Samsung Galaxy S6 SM-G920i 32GB is a good Android phone with 2100 MHz processor 8-core that allows the user run heavy applications. The Samsung Galaxy S6 smartphones and tables don't just use "processors", they use what's called a System-on-a-chip (SoC). The SoC is the equivalent of a computer motherboard, including main processor, graphics processor and memory, on a single chip. The CPU is nonetheless a must-have component of the SoC. Modern SoCs have two, and soon four, processors cores ("multi-core")</p>	<p>at least one of a central processing unit (CPU), a network processor, or a front end processor for communication between a host computer and other devices;</p>	<p>12. The communication device [of claim 11] wherein each communication device includes at least one of an internet connection, a GPS connection, a radio frequency (RF) connection, or a central processing unit (cpu).</p>
<p>The Samsung Galaxy S6 capable of automatically transmitting a signal to lock after several failed log-in attempts. The Samsung Galaxy S6 "Fingertip Heart Rate Monitor" detection device (e.g. cell phone detection device) is a built-in monitor that measures heart rate from a fingertip using a biosensor.</p>	<p>a transmitter for transmitting signals and messages to at least one of a multi-sensor detection device, a cell phone detection device, or a locking device;</p>	<p>28. The communication device [of claim 11] wherein the communication device can send and receive signals, send and receive warnings, send and receive commands, send and receive data, information and report the status of the sensors and operational equipment systems to and from a cell phone, smart phone, PDA or handheld device.</p>

<p>The Samsung Galaxy S6 capable of receiving a signal to reset (e.g. unlock; locking device) the phone. The Samsung Galaxy S6 "Fingertip Heart Rate Monitor" detection device (e.g. cell phone detection device) is a built-in monitor that measures heart rate from a fingertip using a biosensor.</p>	<p>a receiver for receiving signals, data or messages from at least one of a multi-sensor detection device, a cell phone detection device, or a locking device;</p>	<p>28. The communication device [of claim 11] wherein the communication device can send and receive signals, send and receive warnings, send and receive commands, send and receive data, information and report the status of the sensors and operational equipment systems to and from a cell phone, smart phone, PDA or handheld device.</p>
<p>Cellular data connection: The connection that the Galaxy s6 uses to exchange data over the air using your mobile operator's cellular network. Cellular network connection: the Galaxy s6 uses for voice and data connect. This network is managed by the mobile operator. WLAN: Wi-Fi 802.11 a/b/g/n/ac, dual-band, Wi-Fi Direct, hotspot. Bluetooth: v4.1, A2DP, LE,</p>	<p>at least one of a satellite connection, Bluetooth connection, WiFi connection, internet connection, cellular connection, long and/or short range radio frequency (RF) connection, or GPS connection;</p>	<p>25. The communication device [of claim 11] wherein the communication device has at least one of a Bluetooth connection, a Wi-Fi connection, a short and long range radio frequency connection, a Cellular connection, a satellite connection, and a GPS connection.</p>
<p>Seven wireless interfaces in the Samsung Galaxy S6 smartphone - Frequency Division Duplex Cellular, Time Division Duplex Cellular, Wi-Fi, Bluetooth, GNSS (Global Navigation Satellite System), Near-Field Communication, and Wireless Charging. Samsung allows 4 fingerprints to set-up the fingerprint scanner; for log-in and lock-out. Samsung's Face unlock uses the front-facing camera to identify the user and unlock the device. Samsung's iris scanning method, uses special sensors on front of phone to identify and unlock the device.</p>	<p>the communication device being at least a fixed, portable or mobile communication device, equipped with at least one wired or wireless sensor for the detection of humans;</p>	<p>30. The communication device [of claim 11] wherein the communication device is designed to be used with or without biometrics for authentication and identification, with at least one of a fingerprint recognition, voice recognition, face recognition, hand geometry, retina scan, iris scan, heart rate, pulse or signature, thereby allowing access to the product by authorized, trained, and equipped individuals and preventing access to the product by unauthorized, untrained, and unequipped individuals.</p>

<p>After several unsuccessful log-in attempts using a passcode or fingerprint, a Samsung device automatically locks itself up as a security feature. If user is unable to log in after doing all the security layers, there's no other option but to have the phone unlocked. Samsung's near-field communication (NFC) enabled smartphone: slide hand on the back and the NFC Ring can unlock it. The NFC Ring comes with two special NFC tag inlays inside the ring. The NFC Ring can be used to unlock & control mobile devices</p>	<p>the communication device being equipped to receive signals from or send signals to engage (lock), disengage (unlock), or disable (make unavailable) locks;</p>	<p>22. The communication device [of claim 11] wherein the communication device is designed to be equipped with applications for the locking, disabling a lock, enabling a lock, and unlocking the locks of, but not limited to, containers, vehicles, houses and businesses, using a smart phone, cell phone, PDA, laptop or desktop</p>
<p>Samsung only allows you to register 4 fingerprints to set-up the fingerprint scanner; a security feature for easy log-in and lock-out. Samsung's new Face unlock feature uses the front-facing camera to identify the user and unlock the device. Samsung has included an iris scanning method, which uses special sensors on the front of the phone to identify you and unlock the device. Iris scanning is considered one of the most secure biometric methods</p>	<p>the communication device being equipped with biometrics that incorporates at least one of a fingerprint recognition or a face recognition to at least one of gain access to the device or to prevent unauthorized use;</p>	<p>30. The communication device [of claim 11] wherein the communication device is designed to be used with or without biometrics for authentication and identification, with at least one of a fingerprint recognition, voice recognition, face recognition, hand geometry, retina scan, iris scan, heart rate, pulse or signature, thereby allowing access to the product by authorized, trained, and equipped individuals and preventing access to the product by unauthorized, untrained, and unequipped individuals.</p>

<p>Seven wireless interfaces now found in the Samsung Galaxy S6 high-end smartphone - Frequency Division Duplex Cellular, Time Division Duplex Cellular, Wi-Fi, Bluetooth, GNSS (Global Navigation Satellite System), Near-Field Communication, and Wireless Charging</p>	<p>the communication device being capable of wireless near-field communication (NFC) which allows radio frequency (RF) data to be at least one of received or transferred between the communication device and at least one tag that is read by the communication device;</p>	<p>20. The communication device [of claim 11] wherein the communication device can be interconnected through wire or wireless for communication, signals, commands and transmission of data.</p>
<p>Cellular data connection: The connection that the Galaxy s6 uses to exchange data over the air using your mobile operator's cellular network. Cellular network connection: The network that the Galaxy s6 uses for making voice and data connections. This network is managed by the mobile operator. WLAN: WiFi 802.11, WiFi Direct, hotspot. Bluetooth: v4.1, A2DP, LE, apt-X. The Galaxy can determine location using its built-in Global Positioning System (GPS) transmitter, WiFi networks, and mobile networks.</p>	<p>whereupon a signal sent to the receiver of at least one of a multi-sensor detection device, a cell phone detection device, or a locking device from a satellite or a cell phone tower or through at least one of a Bluetooth connection, a WiFi connection, an internet connection, a cellular connection, a GPS connection, a short range radio frequency (RF) connection, or a long range radio frequency (RF) connection, causes a signal that includes at least one of location data or sensor data to be sent to the communication device; and</p>	<p>25. The communication device [of claim 11] wherein the communication device has at least one of a Bluetooth connection, a WiFi connection, a short and long range radio frequency connection, a Cellular connection, a satellite connection, and a GPS connection.</p>
<p>The Samsung Galaxy S6 capable of automatically transmitting a signal to lock after several failed log-in attempts. The Samsung Galaxy S6 capable of receiving a signal to reset (e.g. unlock; locking device). Thereby activating or deactivating a security system.</p>	<p>wherein at least one of a satellite connection, Bluetooth connection, WiFi connection, internet connection, cellular connection, long range radio frequency (RF) connection, or short range radio frequency (RF) connection, capable of signal communication with the transmitter of the communication device, the receiver of the communication device, or the central processing unit (CPU).</p>	<p>28. The communication device [of claim 11] wherein the communication device can send and receive signals, send and receive warnings, send and receive commands, send and receive data, information and report the status of the sensors and operational equipment systems to and from a cell phone, smart phone, PDA or handheld device.</p>

Samsung Galaxy s6 (smartphone) and Samsung Gear S2 (smartwatch) interconnected to the "Yale Assure Lock" (locking device)	Patent #: 9,589,439; Independent Claim 22	Patent #: RE 43,990; Dependent Claims
<p>The Assure Lock with Bluetooth has five digital keys sent to the Digital Keys app by a Yale central server computer. The Assure companion app is available for iOS and Android devices and the Samsung Galaxy Gear S2 smartwatch. The Gear S2, will need to be connected to a mobile device (e.g. Galaxy S6). Yale's Look Door Viewer, allows to see from the Viewer smartphone app.; automatically connects Yale app on phone and unlocks door with smartphone.</p>	<p>A communication device of at least one of a cell phone, a smart phone, a desktop, a handheld, a personal digital assistant (PDA), a laptop, or a computer terminal, comprising:</p>	<p>18. The communication device of claim 11 wherein the communication device having a basic monitoring terminal can be adapted and incorporated to include desktop computers, notebook, PC's, laptops, cell phones, smart phones, LCD monitors, and satellite monitoring</p>
<p>The Gear S2 need to connect to a mobile device (e.g. Galaxy S6) using the Samsung Gear application. The application must be installed on the mobile device (e.g. Galaxy S6). The Gear S2 sensors include: Accelerometer; Gyroscope; Heart Rate; Ambient Light; and, Barometer. Connectivity include: 802.11n WiFi; Bluetooth 4.1; NFC. GPS include: The Gear S2 3G includes a GPS receiver and two apps, Nike+ and S Health, that include GPS tracking support.</p>	<p>at least one of a chemical sensor, a biological sensor, an explosive sensor, a human sensor, a contraband sensor, or a radiological sensor; that is wired or wireless, capable of being disposed within, on, upon or adjacent the communication device;</p>	<p>118. The multi-sensor detection system [of claim 103] wherein the cell phone, the smart phone, and the cell phone detector case have a plurality of sensors for detecting at least one of a chemical, biological, radiological, nuclear, explosive and contraband agents and compounds which are capable of being disposed within the cell phone, the smart phone, or the cell phone detector case.</p>

<p>Samsung Galaxy s6 CPU (Central Processing Unit) - otherwise known as a processor - is an electronic circuit that can execute computer programs. The Samsung Galaxy S6 SM-G920i 32GB is a good Android phone with 2100 MHz processor 8-core that allows the user run heavy applications. The Samsung Galaxy S6 smartphones and tables don't just use "processors", they use what's called a System-on-a-chip (SoC). The SoC is the equivalent of a computer motherboard, including main processor, graphics processor and memory, on a single chip. The CPU is nonetheless a must-have component of the SoC. Modern SoCs have two, and soon four, processors cores ("multi-core")</p>	<p>at least one of a central processing unit (CPU), a network processor, or a front end processor for communication between a host computer and other devices;</p>	<p>12. The communication device [of claim 11] wherein each communication device includes at least one of an internet connection, a GPS connection, a radio frequency (RF) connection, or a central processing unit (cpu).</p>
<p>The Samsung Galaxy S6 capable of automatically transmitting a signal to lock after several failed log-in attempts. The Samsung Galaxy S6 "Fingertip Heart Rate Monitor" detection device (e.g. cell phone detection device) is a built-in monitor that measures heart rate from a fingertip using a biosensor.</p>	<p>a transmitter for transmitting signals and messages to at least one of a multi-sensor detection device, a cell phone detection device, or a locking device;</p>	<p>28. The communication device [of claim 11] wherein the communication device can send and receive signals, send and receive warnings, send and receive commands, send and receive data, information and report the status of the sensors and operational equipment systems to and from a cell phone, smart phone, PDA or handheld device.</p>

<p>The Samsung Galaxy S6 capable of receiving a signal to reset (e.g. unlock; locking device) the phone. The Samsung Galaxy S6 "Fingertip Heart Rate Monitor" detection device (e.g. cell phone detection device) is a built-in monitor that measures heart rate from a fingertip using a biosensor.</p>	<p>a receiver for receiving signals, data or messages from at least one of a multi-sensor detection device, a cell phone detection device, or a locking device;</p>	<p>28. The communication device [of claim 11] wherein the communication device can send and receive signals, send and receive warnings, send and receive commands, send and receive data, information and report the status of the sensors and operational equipment systems to and from a cell phone, smart phone, PDA or handheld device.</p>
<p>Cellular data connection: The connection that the Galaxy s6 uses to exchange data over the air using your mobile operator's cellular network. Cellular network connection: the Galaxy s6 uses for voice and data connect. This network is managed by the mobile operator. WLAN: Wi-Fi 802.11 a/b/g/n/ac, dual-band, Wi-Fi Direct, hotspot. Bluetooth: v4.1, A2DP, LE,</p>	<p>at least one of a satellite connection, Bluetooth connection, WiFi connection, internet connection, cellular connection, long and/or short range radio frequency (RF) connection, or GPS connection;</p>	<p>25. The communication device [of claim 11] wherein the communication device has at least one of a Bluetooth connection, a Wi-Fi connection, a short and long range radio frequency connection, a Cellular connection, a satellite connection, and a GPS connection.</p>
<p>Seven wireless interfaces in the Samsung Galaxy S6 smartphone - Frequency Division Duplex Cellular, Time Division Duplex Cellular, Wi-Fi, Bluetooth, GNSS (Global Navigation Satellite System), Near-Field Communication, and Wireless Charging. Samsung allows 4 fingerprints to set-up the fingerprint scanner; for log-in and lock-out. Samsung's Face unlock uses the front-facing camera to identify the user and unlock the device. Samsung's iris scanning method, uses special sensors on front of phone to identify and unlock the device.</p>	<p>the communication device being at least a fixed, portable or mobile communication device, equipped with at least one wired or wireless sensor for the detection of humans;</p>	<p>30. The communication device [of claim 11] wherein the communication device is designed to be used with or without biometrics for authentication and identification, with at least one of a fingerprint recognition, voice recognition, face recognition, hand geometry, retina scan, iris scan, heart rate, pulse or signature, thereby allowing access to the product by authorized, trained, and equipped individuals and preventing access to the product by unauthorized, untrained, and unequipped individuals.</p>

<p>After several unsuccessful log-in attempts using a passcode or fingerprint, a Samsung device automatically locks itself up as a security feature. If user is unable to log in after doing all the security layers, there's no other option but to have the phone unlocked. Samsung's near-field communication (NFC) enabled smartphone: slide hand on the back and the NFC Ring can unlock it. The NFC Ring comes with two special NFC tag inlays inside the ring. The NFC Ring can be used to unlock & control mobile devices</p>	<p>the communication device being equipped to receive signals from or send signals to engage (lock), disengage (unlock), or disable (make unavailable) locks;</p>	<p>22. The communication device [of claim 11] wherein the communication device is designed to be equipped with applications for the locking, disabling a lock, enabling a lock, and unlocking the locks of, but not limited to, containers, vehicles, houses and businesses, using a smart phone, cell phone, PDA, laptop or desktop</p>
<p>Samsung only allows you to register 4 fingerprints to set-up the fingerprint scanner; a security feature for easy log-in and lock-out. Samsung's new Face unlock feature uses the front-facing camera to identify the user and unlock the device. Samsung has included an iris scanning method, which uses special sensors on the front of the phone to identify you and unlock the device. Iris scanning is considered one of the most secure biometric methods</p>	<p>the communication device being equipped with biometrics that incorporates at least one of a fingerprint recognition or a face recognition to at least one of gain access to the device or to prevent unauthorized use;</p>	<p>30. The communication device [of claim 11] wherein the communication device is designed to be used with or without biometrics for authentication and identification, with at least one of a fingerprint recognition, voice recognition, face recognition, hand geometry, retina scan, iris scan, heart rate, pulse or signature, thereby allowing access to the product by authorized, trained, and equipped individuals and preventing access to the product by unauthorized, untrained, and unequipped individuals.</p>

<p>Seven wireless interfaces now found in the Samsung Galaxy S6 high-end smartphone - Frequency Division Duplex Cellular, Time Division Duplex Cellular, Wi-Fi, Bluetooth, GNSS (Global Navigation Satellite System), Near-Field Communication, and Wireless Charging</p>	<p>the communication device being capable of wireless near-field communication (NFC) which allows radio frequency (RF) data to be at least one of received or transferred between the communication device and at least one tag that is read by the communication device;</p>	<p>20. The communication device [of claim 11] wherein the communication device can be interconnected through wire or wireless for communication, signals, commands and transmission of data.</p>
<p>Cellular data connection: The connection that the Galaxy s6 uses to exchange data over the air using your mobile operator's cellular network. Cellular network connection: The network that the Galaxy s6 uses for making voice and data connections. This network is managed by the mobile operator. WLAN: Wi-Fi 802.11, Wi-Fi Direct, hotspot. Bluetooth: v4.1, A2DP, LE, apt-X. The Galaxy can determine location using its built-in Global Positioning System (GPS) transmitter, Wi-Fi networks, and mobile networks.</p>	<p>whereupon a signal sent to the receiver of at least one of a multi-sensor detection device, a cell phone detection device, or a locking device from a satellite or a cell phone tower or through at least one of a Bluetooth connection, a WiFi connection, an internet connection, a cellular connection, a GPS connection, a short range radio frequency (RF) connection, or a long range radio frequency (RF) connection, causes a signal that includes at least one of location data or sensor data to be sent to the communication device; and</p>	<p>25. The communication device [of claim 11] wherein the communication device has at least one of a Bluetooth connection, a Wi-Fi connection, a short and long range radio frequency connection, a Cellular connection, a satellite connection, and a GPS connection.</p>
<p>The Samsung Galaxy S6 capable of automatically transmitting a signal to lock after several failed log-in attempts. The Samsung Galaxy S6 capable of receiving a signal to reset (e.g. unlock; locking device). Thereby activating or deactivating a security system.</p>	<p>wherein at least one of a satellite connection, Bluetooth connection, WiFi connection, internet connection, cellular connection, long range radio frequency (RF) connection, or short range radio frequency (RF) connection, capable of signal communication with the transmitter of the communication device, the receiver of the communication device, or the central processing unit (CPU).</p>	<p>28. The communication device [of claim 11] wherein the communication device can send and receive signals, send and receive warnings, send and receive commands, send and receive data, information and report the status of the sensors and operational equipment systems to and from a cell phone, smart phone, PDA or handheld device.</p>

Samsung Galaxy s6 (smartphone) and "Samsung SmartThings Hub" (interface-gateway) interconnected to the Yale Assure Lock (locking device)	Patent #: 9,589,439; Independent Claim 22	Patent #: RE 43,990; Dependent Claims
<p>The SmartThings app turns the Samsung Galaxy S6 smartphone into a remote to control all of the smart devices in your home. Available for download for Android, iOS and Windows. The Samsung SmartThings Hub communicates information from your smartphone to all of your different connected products—regardless of their wireless protocol—so that you can easily monitor and control them from the free SmartThings app.</p>	<p>A communication device of at least one of a cell phone, a smart phone, a desktop, a handheld, a personal digital assistant (PDA), a laptop, or a computer terminal, comprising:</p>	<p>18. The communication device of claim 11 wherein the communication device having a basic monitoring terminal can be adapted and incorporated to include desktop computers, notebook, PC's, laptops, cell phones, smart phones, LCD monitors, and satellite monitoring</p>
<p>The Gear S2 need to connect to a mobile device (e.g. Galaxy S6) using the Samsung Gear application. The application must be installed on the mobile device (e.g. Galaxy S6). The Gear S2 sensors include: Accelerometer; Gyroscope; Heart Rate; Ambient Light; and, Barometer. Connectivity include: 802.11n WiFi; Bluetooth 4.1; NFC. GPS include: The Gear S2 3G includes a GPS receiver and two apps, Nike+ and S Health, that include GPS tracking support.</p>	<p>at least one of a chemical sensor, a biological sensor, an explosive sensor, a human sensor, a contraband sensor, or a radiological sensor; that is wired or wireless, capable of being disposed within, on, upon or adjacent the communication device;</p>	<p>118. The multi-sensor detection system [of claim 103] wherein the cell phone, the smart phone, and the cell phone detector case have a plurality of sensors for detecting at least one of a chemical, biological, radiological, nuclear, explosive and contraband agents and compounds which are capable of being disposed within the cell phone, the smart phone, or the cell phone detector case.</p>

<p>Samsung Galaxy s6 CPU (Central Processing Unit) - otherwise known as a processor - is an electronic circuit that can execute computer programs. The Samsung Galaxy S6 SM-G920i 32GB is a good Android phone with 2100 MHz processor 8-core that allows the user run heavy applications. The Samsung Galaxy S6 smartphones and tables don't just use "processors", they use what's called a System-on-a-chip (SoC). The SoC is the equivalent of a computer motherboard, including main processor, graphics processor and memory, on a single chip. The CPU is nonetheless a must-have component of the SoC. Modern SoCs have two, and soon four, processors cores ("multi-core")</p>	<p>at least one of a central processing unit (CPU), a network processor, or a front end processor for communication between a host computer and other devices;</p>	<p>12. The communication device [of claim 11] wherein each communication device includes at least one of an internet connection, a GPS connection, a radio frequency (RF) connection, or a central processing unit (cpu).</p>
<p>The Samsung Galaxy S6 capable of automatically transmitting a signal to lock after several failed log-in attempts. The Samsung Galaxy S6 "Fingertip Heart Rate Monitor" detection device (e.g. cell phone detection device) is a built-in monitor that measures heart rate from a fingertip using a biosensor.</p>	<p>a transmitter for transmitting signals and messages to at least one of a multi-sensor detection device, a cell phone detection device, or a locking device;</p>	<p>28. The communication device [of claim 11] wherein the communication device can send and receive signals, send and receive warnings, send and receive commands, send and receive data, information and report the status of the sensors and operational equipment systems to and from a cell phone, smart phone, PDA or handheld device.</p>

<p>The Samsung Galaxy S6 capable of receiving a signal to reset (e.g. unlock; locking device) the phone. The Samsung Galaxy S6 "Fingertip Heart Rate Monitor" detection device (e.g. cell phone detection device) is a built-in monitor that measures heart rate from a fingertip using a biosensor.</p>	<p>a receiver for receiving signals, data or messages from at least one of a multi-sensor detection device, a cell phone detection device, or a locking device;</p>	<p>28. The communication device [of claim 11] wherein the communication device can send and receive signals, send and receive warnings, send and receive commands, send and receive data, information and report the status of the sensors and operational equipment systems to and from a cell phone, smart phone, PDA or handheld device.</p>
<p>Cellular data connection: The connection that the Galaxy s6 uses to exchange data over the air using your mobile operator's cellular network. Cellular network connection: the Galaxy s6 uses for voice and data connect. This network is managed by the mobile operator. WLAN: Wi-Fi 802.11 a/b/g/n/ac, dual-band, Wi-Fi Direct, hotspot. Bluetooth: v4.1, A2DP, LE,</p>	<p>at least one of a satellite connection, Bluetooth connection, WiFi connection, internet connection, cellular connection, long and/or short range radio frequency (RF) connection, or GPS connection;</p>	<p>25. The communication device [of claim 11] wherein the communication device has at least one of a Bluetooth connection, a Wi-Fi connection, a short and long range radio frequency connection, a Cellular connection, a satellite connection, and a GPS connection.</p>
<p>Seven wireless interfaces in the Samsung Galaxy S6 smartphone - Frequency Division Duplex Cellular, Time Division Duplex Cellular, Wi-Fi, Bluetooth, GNSS (Global Navigation Satellite System), Near-Field Communication, and Wireless Charging. Samsung allows 4 fingerprints to set-up the fingerprint scanner; for log-in and lock-out. Samsung's Face unlock uses the front-facing camera to identify the user and unlock the device. Samsung's iris scanning method, uses special sensors on front of phone to identify and unlock the device.</p>	<p>the communication device being at least a fixed, portable or mobile communication device, equipped with at least one wired or wireless sensor for the detection of humans;</p>	<p>30. The communication device [of claim 11] wherein the communication device is designed to be used with or without biometrics for authentication and identification, with at least one of a fingerprint recognition, voice recognition, face recognition, hand geometry, retina scan, iris scan, heart rate, pulse or signature, thereby allowing access to the product by authorized, trained, and equipped individuals and preventing access to the product by unauthorized, untrained, and unequipped individuals.</p>

<p>After several unsuccessful log-in attempts using a passcode or fingerprint, a Samsung device automatically locks itself up as a security feature. If user is unable to log in after doing all the security layers, there's no other option but to have the phone unlocked. Samsung's near-field communication (NFC) enabled smartphone: slide hand on the back and the NFC Ring can unlock it. The NFC Ring comes with two special NFC tag inlays inside the ring. The NFC Ring can be used to unlock & control mobile devices</p>	<p>the communication device being equipped to receive signals from or send signals to engage (lock), disengage (unlock), or disable (make unavailable) locks;</p>	<p>22. The communication device [of claim 11] wherein the communication device is designed to be equipped with applications for the locking, disabling a lock, enabling a lock, and unlocking the locks of, but not limited to, containers, vehicles, houses and businesses, using a smart phone, cell phone, PDA, laptop or desktop</p>
<p>Samsung only allows you to register 4 fingerprints to set-up the fingerprint scanner; a security feature for easy log-in and lock-out. Samsung's new Face unlock feature uses the front-facing camera to identify the user and unlock the device. Samsung has included an iris scanning method, which uses special sensors on the front of the phone to identify you and unlock the device. Iris scanning is considered one of the most secure biometric methods</p>	<p>the communication device being equipped with biometrics that incorporates at least one of a fingerprint recognition or a face recognition to at least one of gain access to the device or to prevent unauthorized use;</p>	<p>30. The communication device [of claim 11] wherein the communication device is designed to be used with or without biometrics for authentication and identification, with at least one of a fingerprint recognition, voice recognition, face recognition, hand geometry, retina scan, iris scan, heart rate, pulse or signature, thereby allowing access to the product by authorized, trained, and equipped individuals and preventing access to the product by unauthorized, untrained, and unequipped individuals.</p>

<p>Seven wireless interfaces now found in the Samsung Galaxy S6 high-end smartphone - Frequency Division Duplex Cellular, Time Division Duplex Cellular, Wi-Fi, Bluetooth, GNSS (Global Navigation Satellite System), Near-Field Communication, and Wireless Charging</p>	<p>the communication device being capable of wireless near-field communication (NFC) which allows radio frequency (RF) data to be at least one of received or transferred between the communication device and at least one tag that is read by the communication device;</p>	<p>20. The communication device [of claim 11] wherein the communication device can be interconnected through wire or wireless for communication, signals, commands and transmission of data.</p>
<p>Cellular data connection: The connection that the Galaxy s6 uses to exchange data over the air using your mobile operator's cellular network. Cellular network connection: The network that the Galaxy s6 uses for making voice and data connections. This network is managed by the mobile operator. WLAN: Wi-Fi 802.11, Wi-Fi Direct, hotspot. Bluetooth: v4.1, A2DP, LE, apt-X. The Galaxy can determine location using its built-in Global Positioning System (GPS) transmitter, Wi-Fi networks, and mobile networks.</p>	<p>whereupon a signal sent to the receiver of at least one of a multi-sensor detection device, a cell phone detection device, or a locking device from a satellite or a cell phone tower or through at least one of a Bluetooth connection, a WiFi connection, an internet connection, a cellular connection, a GPS connection, a short range radio frequency (RF) connection, or a long range radio frequency (RF) connection, causes a signal that includes at least one of location data or sensor data to be sent to the communication device; and</p>	<p>25. The communication device [of claim 11] wherein the communication device has at least one of a Bluetooth connection, a Wi-Fi connection, a short and long range radio frequency connection, a Cellular connection, a satellite connection, and a GPS connection.</p>
<p>The Samsung Galaxy S6 capable of automatically transmitting a signal to lock after several failed log-in attempts. The Samsung Galaxy S6 capable of receiving a signal to reset (e.g. unlock; locking device). Thereby activating or deactivating a security system.</p>	<p>wherein at least one of a satellite connection, Bluetooth connection, WiFi connection, internet connection, cellular connection, long range radio frequency (RF) connection, or short range radio frequency (RF) connection, capable of signal communication with the transmitter of the communication device, the receiver of the communication device, or the central processing unit (CPU).</p>	<p>28. The communication device [of claim 11] wherein the communication device can send and receive signals, send and receive warnings, send and receive commands, send and receive data, information and report the status of the sensors and operational equipment systems to and from a cell phone, smart phone, PDA or handheld device.</p>

Samsung Galaxy s6 (smartphone) and Samsung Gear S2 (smartwatch) interconnected to the "Volkswagen Car-Net e-Remote" (locking device)	Patent #: 9,589,439; Independent Claim 22	Patent #: RE 43,990; Dependent Claims
<p>Samsung created new version of Volkswagen app which gives control over key features of your car directly from the smartwatch – Samsung Gear S2. The Gear S2, will need to be connected to a mobile device (e.g. Galaxy S6). Samsung's partnership with Volkswagen, for smartphone connections via Car Mode for Galaxy, an app powered by MirrorLink. Car Mode for Galaxy. Volkswagen Car-Net e-Remote, if own a VW and Gear S2, enables check that car is locked with smartwatch.</p>	<p>A communication device of at least one of a cell phone, a smart phone, a desktop, a handheld, a personal digital assistant (PDA), a laptop, or a computer terminal, comprising:</p>	<p>18. The communication device of claim 11 wherein the communication device having a basic monitoring terminal can be adapted and incorporated to include desktop computers, notebook, PC's, laptops, cell phones, smart phones, LCD monitors, and satellite monitoring</p>
<p>The Gear S2 need to connect to a mobile device (e.g. Galaxy S6) using the Samsung Gear application. The application must be installed on the mobile device (e.g. Galaxy S6). The Gear S2 sensors include: Accelerometer; Gyroscope; Heart Rate; Ambient Light; and, Barometer. Connectivity include: 802.11n WiFi; Bluetooth 4.1; NFC. GPS include: The Gear S2 3G includes a GPS receiver and two apps, Nike+ and S Health, that include GPS tracking support.</p>	<p>at least one of a chemical sensor, a biological sensor, an explosive sensor, a human sensor, a contraband sensor, or a radiological sensor; that is wired or wireless, capable of being disposed within, on, upon or adjacent the communication device;</p>	<p>118. The multi-sensor detection system [of claim 103] wherein the cell phone, the smart phone, and the cell phone detector case have a plurality of sensors for detecting at least one of a chemical, biological, radiological, nuclear, explosive and contraband agents and compounds which are capable of being disposed within the cell phone, the smart phone, or the cell phone detector case.</p>

<p>Samsung Galaxy s6 CPU (Central Processing Unit) - otherwise known as a processor - is an electronic circuit that can execute computer programs. The Samsung Galaxy S6 SM-G920i 32GB is a good Android phone with 2100 MHz processor 8-core that allows the user run heavy applications. The Samsung Galaxy S6 smartphones and tables don't just use "processors", they use what's called a System-on-a-chip (SoC). The SoC is the equivalent of a computer motherboard, including main processor, graphics processor and memory, on a single chip. The CPU is nonetheless a must-have component of the SoC. Modern SoCs have two, and soon four, processors cores ("multi-core")</p>	<p>at least one of a central processing unit (CPU), a network processor, or a front end processor for communication between a host computer and other devices;</p>	<p>12. The communication device [of claim 11] wherein each communication device includes at least one of an internet connection, a GPS connection, a radio frequency (RF) connection, or a central processing unit (cpu).</p>
<p>The Samsung Galaxy S6 capable of automatically transmitting a signal to lock after several failed log-in attempts. The Samsung Galaxy S6 "Fingertip Heart Rate Monitor" detection device (e.g. cell phone detection device) is a built-in monitor that measures heart rate from a fingertip using a biosensor.</p>	<p>a transmitter for transmitting signals and messages to at least one of a multi-sensor detection device, a cell phone detection device, or a locking device;</p>	<p>28. The communication device [of claim 11] wherein the communication device can send and receive signals, send and receive warnings, send and receive commands, send and receive data, information and report the status of the sensors and operational equipment systems to and from a cell phone, smart phone, PDA or handheld device.</p>

<p>The Samsung Galaxy S6 capable of receiving a signal to reset (e.g. unlock; locking device) the phone. The Samsung Galaxy S6 "Fingertip Heart Rate Monitor" detection device (e.g. cell phone detection device) is a built-in monitor that measures heart rate from a fingertip using a biosensor.</p>	<p>a receiver for receiving signals, data or messages from at least one of a multi-sensor detection device, a cell phone detection device, or a locking device;</p>	<p>28. The communication device [of claim 11] wherein the communication device can send and receive signals, send and receive warnings, send and receive commands, send and receive data, information and report the status of the sensors and operational equipment systems to and from a cell phone, smart phone, PDA or handheld device.</p>
<p>Cellular data connection: The connection that the Galaxy s6 uses to exchange data over the air using your mobile operator's cellular network. Cellular network connection: the Galaxy s6 uses for voice and data connect. This network is managed by the mobile operator. WLAN: Wi-Fi 802.11 a/b/g/n/ac, dual-band, Wi-Fi Direct, hotspot. Bluetooth: v4.1, A2DP, LE,</p>	<p>at least one of a satellite connection, Bluetooth connection, WiFi connection, internet connection, cellular connection, long and/or short range radio frequency (RF) connection, or GPS connection;</p>	<p>25. The communication device [of claim 11] wherein the communication device has at least one of a Bluetooth connection, a Wi-Fi connection, a short and long range radio frequency connection, a Cellular connection, a satellite connection, and a GPS connection.</p>
<p>Seven wireless interfaces in the Samsung Galaxy S6 smartphone - Frequency Division Duplex Cellular, Time Division Duplex Cellular, Wi-Fi, Bluetooth, GNSS (Global Navigation Satellite System), Near-Field Communication, and Wireless Charging. Samsung allows 4 fingerprints to set-up the fingerprint scanner; for log-in and lock-out. Samsung's Face unlock uses the front-facing camera to identify the user and unlock the device. Samsung's iris scanning method, uses special sensors on front of phone to identify and unlock the device.</p>	<p>the communication device being at least a fixed, portable or mobile communication device, equipped with at least one wired or wireless sensor for the detection of humans;</p>	<p>30. The communication device [of claim 11] wherein the communication device is designed to be used with or without biometrics for authentication and identification, with at least one of a fingerprint recognition, voice recognition, face recognition, hand geometry, retina scan, iris scan, heart rate, pulse or signature, thereby allowing access to the product by authorized, trained, and equipped individuals and preventing access to the product by unauthorized, untrained, and unequipped individuals.</p>

<p>After several unsuccessful log-in attempts using a passcode or fingerprint, a Samsung device automatically locks itself up as a security feature. If user is unable to log in after doing all the security layers, there's no other option but to have the phone unlocked. Samsung's near-field communication (NFC) enabled smartphone: slide hand on the back and the NFC Ring can unlock it. The NFC Ring comes with two special NFC tag inlays inside the ring. The NFC Ring can be used to unlock & control mobile devices</p>	<p>the communication device being equipped to receive signals from or send signals to engage (lock), disengage (unlock), or disable (make unavailable) locks;</p>	<p>22. The communication device [of claim 11] wherein the communication device is designed to be equipped with applications for the locking, disabling a lock, enabling a lock, and unlocking the locks of, but not limited to, containers, vehicles, houses and businesses, using a smart phone, cell phone, PDA, laptop or desktop</p>
<p>Samsung only allows you to register 4 fingerprints to set-up the fingerprint scanner; a security feature for easy log-in and lock-out. Samsung's new Face unlock feature uses the front-facing camera to identify the user and unlock the device. Samsung has included an iris scanning method, which uses special sensors on the front of the phone to identify you and unlock the device. Iris scanning is considered one of the most secure biometric methods</p>	<p>the communication device being equipped with biometrics that incorporates at least one of a fingerprint recognition or a face recognition to at least one of gain access to the device or to prevent unauthorized use;</p>	<p>30. The communication device [of claim 11] wherein the communication device is designed to be used with or without biometrics for authentication and identification, with at least one of a fingerprint recognition, voice recognition, face recognition, hand geometry, retina scan, iris scan, heart rate, pulse or signature, thereby allowing access to the product by authorized, trained, and equipped individuals and preventing access to the product by unauthorized, untrained, and unequipped individuals.</p>

<p>Seven wireless interfaces now found in the Samsung Galaxy S6 high-end smartphone - Frequency Division Duplex Cellular, Time Division Duplex Cellular, Wi-Fi, Bluetooth, GNSS (Global Navigation Satellite System), Near-Field Communication, and Wireless Charging</p>	<p>the communication device being capable of wireless near-field communication (NFC) which allows radio frequency (RF) data to be at least one of received or transferred between the communication device and at least one tag that is read by the communication device;</p>	<p>20. The communication device [of claim 11] wherein the communication device can be interconnected through wire or wireless for communication, signals, commands and transmission of data.</p>
<p>Cellular data connection: The connection that the Galaxy s6 uses to exchange data over the air using your mobile operator's cellular network. Cellular network connection: The network that the Galaxy s6 uses for making voice and data connections. This network is managed by the mobile operator. WLAN: Wi-Fi 802.11, Wi-Fi Direct, hotspot. Bluetooth: v4.1, A2DP, LE, apt-X. The Galaxy can determine location using its built-in Global Positioning System (GPS) transmitter, Wi-Fi networks, and mobile networks.</p>	<p>whereupon a signal sent to the receiver of at least one of a multi-sensor detection device, a cell phone detection device, or a locking device from a satellite or a cell phone tower or through at least one of a Bluetooth connection, a WiFi connection, an internet connection, a cellular connection, a GPS connection, a short range radio frequency (RF) connection, or a long range radio frequency (RF) connection, causes a signal that includes at least one of location data or sensor data to be sent to the communication device; and</p>	<p>25. The communication device [of claim 11] wherein the communication device has at least one of a Bluetooth connection, a Wi-Fi connection, a short and long range radio frequency connection, a Cellular connection, a satellite connection, and a GPS connection.</p>
<p>The Samsung Galaxy S6 capable of automatically transmitting a signal to lock after several failed log-in attempts. The Samsung Galaxy S6 capable of receiving a signal to reset (e.g. unlock; locking device). Thereby activating or deactivating a security system.</p>	<p>wherein at least one of a satellite connection, Bluetooth connection, WiFi connection, internet connection, cellular connection, long range radio frequency (RF) connection, or short range radio frequency (RF) connection, capable of signal communication with the transmitter of the communication device, the receiver of the communication device, or the central processing unit (CPU).</p>	<p>28. The communication device [of claim 11] wherein the communication device can send and receive signals, send and receive warnings, send and receive commands, send and receive data, information and report the status of the sensors and operational equipment systems to and from a cell phone, smart phone, PDA or handheld device.</p>